THE BUILDER

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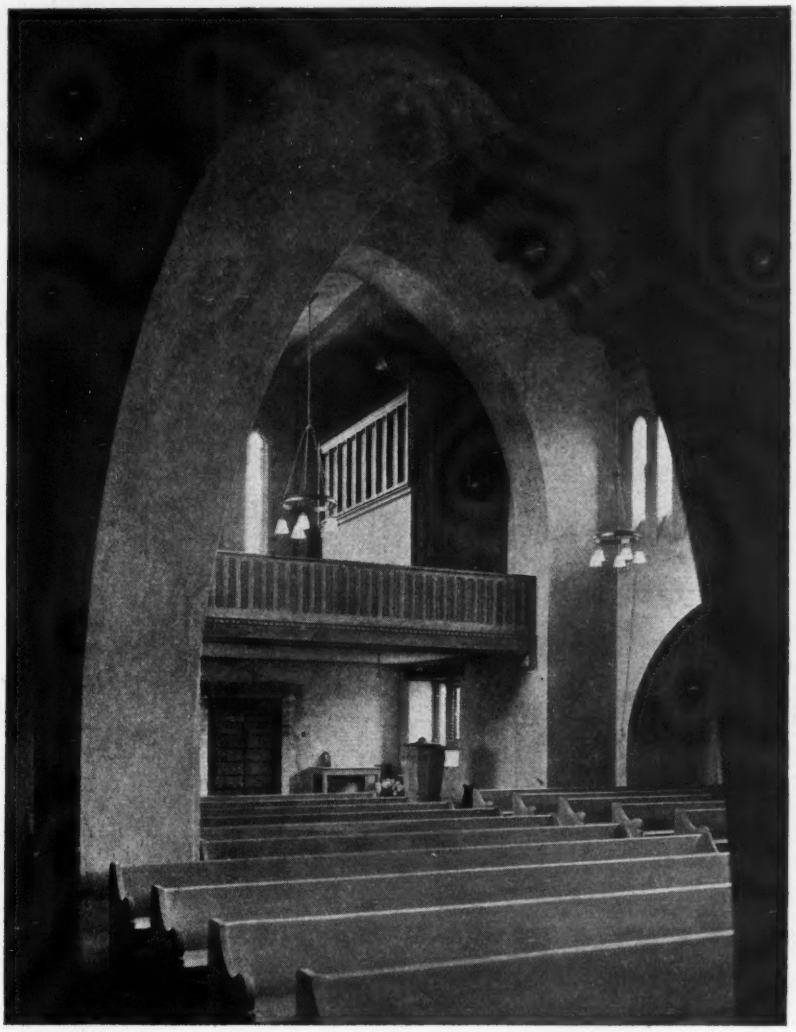


St. Andrew's Church, Luton: View of West End from South Aisle.

SIR GILES SCOTT, R.A., F.R.I.B.A., Architect.

MEETINGS

FRIDAY, *November* 18.

Institution of Mechanical Engineers. Mr. H. C. Town on "Modern Hydraulic Operation of Machine Tools." 6 p.m.

London Society. Professor S. D. Adshead on "London Bridges and London Development." 5 p.m.

SATURDAY, *November* 19.

Institution of Municipal and County Engineers. South-Eastern District Meeting. At the Council Offices, Woking. 12 noon.

St. Paul's Ecclesiological Society. Visit to St. Helen's Church, Great St. Helen's, Bishopsgate, E.C.3. 2.30 p.m.

MONDAY, *November* 21.

Royal Society of Arts. Commander A. N. G. Firebrace on "Fire Fighting." 8 p.m.

Chadwick Public Lectures. Professor S. D. Adshead on "Some Recent Developments in the Housing Problem." At the Technical College, Bradford. 7.30 p.m.

Christ Church Literary Society. Sir Edwin Lutyens on "The New Delhi." At the Hall, Herbrand-street, W.C.1. 8.30 p.m.

TUESDAY, *November* 22.

Institution of Electrical Engineers (Scottish Centre). Annual Dinner. At the Grosvenor Restaurant, Gordon-street, Glasgow, C.2. 7 p.m.

Royal Academy of Arts. Mr. J. W. Mackail on "Tradition and Design." 5 p.m.

Institution of Structural Engineers (Lancashire and Cheshire Branch). Mr. J. H. Paterson on "Arc Welding of Steel Structures." At the Engineering Society, Liverpool. 7 p.m.

Hampshire and Isle of Wight Architectural Association. Mr. R. W. Maitland on "Relation of Light in Architecture." At Portsmouth.

WEDNESDAY, *November* 23.

Royal Academy of Arts. Mr. Laurence Binyon on "Art and Life." 5 p.m.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "Greek Architecture." 6 p.m

Liverpool Architectural Society. Mr. Basil Oliver on "What the Preservation Societies are doing." 6 p.m.

THURSDAY, *November* 24.

Royal Academy of Arts. Mr. D. S. MacColl on "Dimensions and Design." 5 p.m.

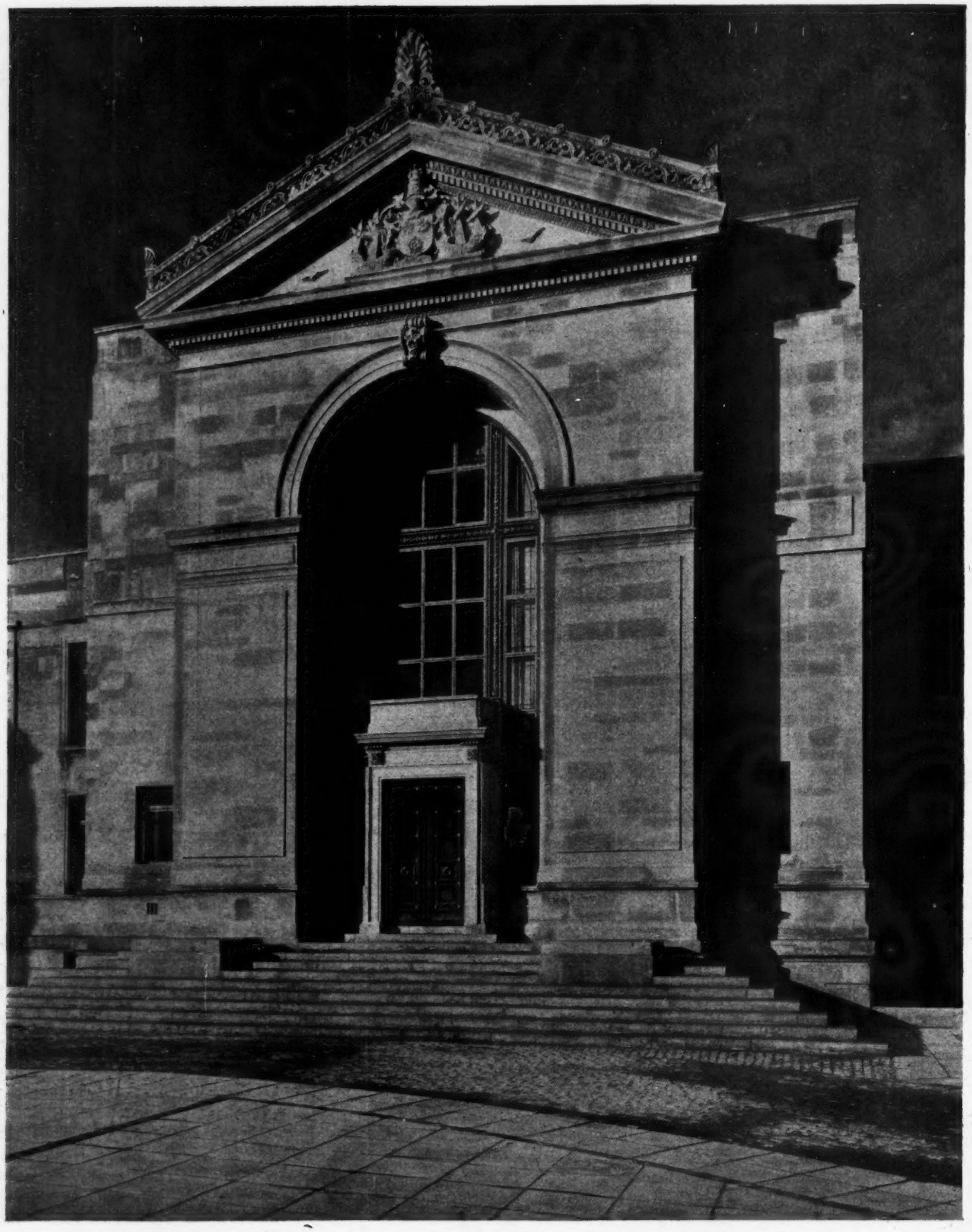
Society of Antiquaries. Mr. J. G. Mann on "Chapel of the Order of the Swan at Ansbach." 8.30 p.m.

Institution of Structural Engineers. Mr. C. J. Jackaman on "Reconstruction of the Ryde Pier and Contingent Works." 6.30 p.m.

Institution of Structural Engineers (Midland Counties Branch). Mr. F. M. Du-Plat-Taylor on "A Sea Wall in Kent." At Chamber of Commerce, Birmingham. 6.30 p.m.

FRIDAY-MONDAY, *November* 25-28.

National Housing and Town Planning Council. Conference. At Scarborough.



Southampton Civic Centre: Detail of principal Entrance to Municipal Offices.

MR. E. BERRY WEBBER, A.R.I.B.A., Architect.

PUBLIC EXPENDITURE AND BUILDING

THE reports of the various committees recommending possible ways of reducing public expenditure are now under the consideration of the Chancellor of the Exchequer. Although no official intimation as to the recommendations has yet been published, it is stated in well-informed quarters that considerable differences of opinion were shown by members of the committees as to the wisdom of reducing further the building schemes of local authorities.

Two schools of thought have emerged out of the investigations that have been in progress since last July. On the one side are those, led by the Federation of British Industries, who insist that the burden of taxation and rates must be lowered at any cost, if industry is permanently to revive. On the other hand, there are those who argue that it is madness to effect such economies as will throw thousands more men upon public funds. Those at the head of affairs are endeavouring to devise some scheme which will combine the good points in both schools of thought. As far as can be ascertained, the proposals under discussion so far are tentative, and nothing has definitely been decided by the Government. But it is said, on what appears to be good authority, that such men as the Prime Minister, Mr. Stanley Baldwin, and Sir Henry Betterton, the Minister of Labour, are very anxious to put forward constructive plans, not relief work, but schemes which will enable the basic industries of this country to recover ground. Naturally much attention is being given to the building industry. The following is an outline of a constructive proposal which is at present circulating in certain quarters :—

Unemployment in the building industry increased from a quarter of a million last autumn to over 339,000 last July. The latter figure occurred at the height of the normal building season, and the number of men out of work in the building and public works group is rapidly increasing again this autumn. The average wage paid to these 339,000 men may be taken as £3 a week, and to-day a sum varying from 20s. 3d. to 27s. 3d. is being paid them out of public funds in the form of unemployment insurance benefit and public assistance. If more building and public works can be carried out by local authorities, many of these men will again be employed. The present unproductive expenditure in the form of relief will then cease in the case of all men who return to their usual work.

This will immediately affect other industries. For example, the brick industry alone, when engaged on normal production, consumes approximately 2,500,000 tons of coal per annum. For every million tons of structural steel manufactured, 3,500,000 tons of coal are consumed. In short, activity in building and public works means fresh business for a large number of important British industries, and will not involve any considerable export of capital outside this country. Under the Addison Scheme, local authorities throughout the country were given legal authority to raise money for housing on what were known as Local Housing Bonds. Private investors were glad to take up these bonds, and those who were far-sighted enough to do so have already been richly rewarded, as the original bonds pay 6 per cent.

Is it not possible for a similar local effort to be made during these difficult days? Probably those county councils, cities and county boroughs that are financially sound would to-day be able to raise money at 2½ per cent., or some low figure. The proceeds of these loans might be definitely used for building and public works, and British labour and British materials would be used. The present method of obtaining loans through the Public Works Loan Service is cumbrous and troublesome. If permission were given to responsible local authorities to raise loans locally, there would be a direct appeal to local patriotism. The money is there waiting for work. British industries are prepared to supply the demand. But owing to the economy campaign the disease of "creeping paralysis" has stricken the whole industry.

Is it beyond the wisdom of our statesmen to devise some means of utilising money so as to provide work, and at the same time to erect the houses which are still so urgently needed and carry out various building projects, which have been put on the shelf by local authorities for the last twelve months? It is not suggested that the proposal outlined above can be carried out without legislation, and it is clearly open to criticism in details; but it is being put forward as a constructive proposal founded on past experience and likely to remedy to some extent the present disastrous state of things.

Clearly something must be done to deal with a state of affairs which is Gilbertian; on the one hand, idle capital and labour and, thanks to machinery, a greatly increased capacity to produce wealth; and, on the other, destitution and want and unsatisfied demand. "The conservation of our resources," which is the panacea recommended by some of our economists, is a policy which has, it would seem, been adopted by the Government and municipal authorities, but can anything better than stagnation be hoped for in this direction? "A waiting for something to turn up policy," as we have heard it expressed, is a doubtful way in which to promote confidence or a return to prosperity, and we would like once again to quote the words of some of our leading economists in a recent letter to *The Times*. "In so far as labour and capital are idle," they told us, "the resources available for paying income to their owners are not conserved; they simply do not come into existence." This policy has had, and is having, serious consequences for the architectural profession and the building industry, and for that reason constructive proposals have been made by the Building Industries' National Council for dealing with the situation, and these we published and referred to recently. The industry is well equipped to absorb large numbers of the unemployed if the Government and the municipal authorities will encourage the public to build by setting an example themselves by carrying out remunerative building and public works or by the methods suggested above.

That the industry is keenly alive to the needs of the times is indicated by the proposals we refer to, as well as by the attention it is giving to the abolition of unnecessary restrictive regulations and by-laws which hamper building. This latter subject has been the special concern of the Advisory Council of the Building Industry, who have just issued their Annual Report for the administrative year 1931–32, from which we give extracts elsewhere in this issue.

Much is hoped from the ultimate revision of the London Building Act and the standardisation in building materials and methods which will undoubtedly arise therefrom. It is the aim of the Advisory Council of the Building Industry to urge acceptance throughout the country of an appropriate standardisation of building regulations, and there is every reason, therefore, for urging the London County Council to proceed rapidly with its work, particularly as the building industry is now suffering from unparalleled depression. "There was never more need than now (states the Report) to call upon municipal and county authorities to remove from the building industry every impediment and restrictive regulation or by-law that can possibly be removed without danger to the public health and safety."

This Report shows that the building industry is very much alive, but more is needed if full advantage is to be taken of the present opportunity. The industry must speak with one voice, and must lay aside certain divergences of opinion which exist on immaterial points. If the industry will only act together this winter there is a real hope of a change of policy regarding economy in high places, but there must be unity.

NOTES

Official Architecture.

It is impossible not to have sympathy with the average member of the architectural profession in his protests against the inroads constantly being made on his work. The increasing development of the work of the official architect is a constant menace to the practice of the ordinary architect and we may take it that the letter from Mr. W. Davidson in our pages to-day represents a widespread feeling amongst architects. In his well-merited commendation of the work of official architects we must, of course, believe that Sir Raymond Unwin would regret to make the outlook for the average architect any the more difficult, but unfortunately there are so many forces at work to affect the private practitioner that we naturally look to the Institute for such protection and help as can be obtained. The increased efficiency of all those who are in a position to reduce the ordinary practice of architects has to be reckoned with, and it cannot be doubted that the private practitioner suffers. After the application and study necessary to the equipment of a modern architect it may seem curious that we should applaud those who are taking his livelihood from him. Can anyone say how the increasing competition against the architectural profession is to be met? Certainly not by ignoring or belittling it. After all, there is so much which can be quite properly carried out by the official architect that his activities should not be allowed to encroach on the work of the private architect.

The Beauty of Efficiency.

We have been treated in the Press to what is called a "Defence of Modern Buildings," largely called forth, we believe, by the words of Dean Inge, who said the other day that "the almost instinctive graciousness of the old architecture has given place to an unsightliness never before seen in the dwellings of civilised man." Two eminent artists fully endorsed this in a commentary on the Dean's words. But how can it be true that "a building which is 100 per cent. efficient for its purpose is beautiful"? Yet this is put forward as a sort of defence for modern architecture. We suppose those who believe in this dictum would claim that a healthy man is an example of efficiency. Is he therefore necessarily beautiful? His nose and mouth may function perfectly, but noses and mouths are often the very reverse of beautiful, notwithstanding they fulfil perfectly all the needs of Nature. It is surely a fallacy to say that because a modern cinema comprises all the practical requirements it is therefore beautiful. We have in London and elsewhere some terrible proofs to the contrary. If the form, clothing and expression of modern building were beautiful we might take some pleasure in this efficiency.

Build Now!

Further weight to the contentions of those who believe that the position of the building trade, with urgent work lying undone and a quarter of a million men unemployed, is anomalous, has been given by the President of the London Master Builders' Association, Mr. W. J. Stewart, M.P., who, addressing his constituents in South Belfast, said that he was satisfied that the building trade unemployed could all be fully employed without any cost to the State. "Slum clearance should," he said, "be tackled without delay. Materials are cheap, and the unemployed—to the extent of over 250,000—are being paid for doing nothing. I cannot see why there should be any difference of opinion as to the financial value of putting all these unemployed to work instead of paying them for doing nothing."

A Layman's Opinion.

That this opinion is not confined to the leaders of the building industry was shown by Dr. C. Killick Millard, Medical Officer of Health for Leicester, who, in a paper before the Public Health Congress on Wednesday, quoted the opinion expressed to him by "the chief financial official of a large city." Here is the statement: "The brains of this country are bankrupt. Here we have (a) an urgent need of more houses for the overcrowded families of the poor in the slums and to replace the houses which ought to be demolished; (b) an army of men unemployed in the building and allied trades who are living on the dole and being progressively demoralised in the process, and helping to swell the general trend of stagnation and depression; (c) a vast amount of idle capital in the hands of the banks and the building societies which they do not know what to do with; yet the difficulties in the way seem to be insuperable, and we are reaching an impasse which is getting worse instead of better. I repeat that the brains of this country are bankrupt!" The brains of this country, of course, are not bankrupt, as the volume of opinion expressed by the building industry, which has been crystallised in the recent Memorandum published by the Building Industries National Council, shows. What is clear is that unless steps are taken to set in motion much of

From the Exhibition at the R.I.B.A.

Church of St. Jean, Basle.

From a drawing by Georges Bouet.

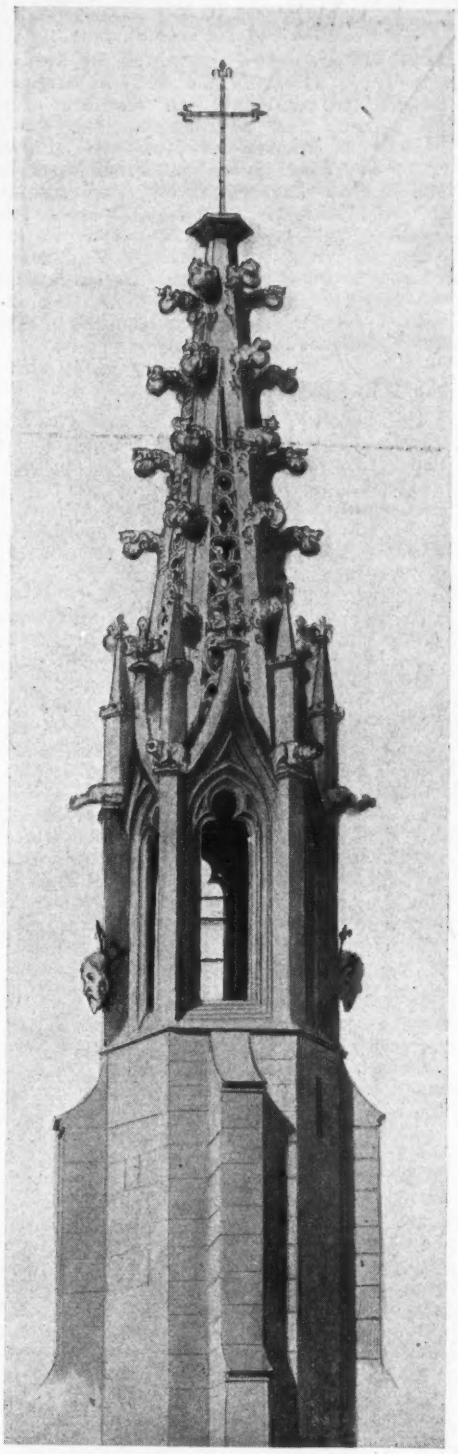
suspended municipal building work, many of our building firms throughout the country may be forced into bankruptcy.

The Public and Building.

Sir Raymond Unwin presided at a largely attended meeting held on the 9th instant at the R.I.B.A. to which were invited representatives of manufacturers of all classes of building materials to consider a scheme for an educational effort to encourage the interest of the public in the vital position which the industry occupies in the economic fabric of the nation. Sir Raymond explained that the newly-formed Building Industries National Council had its origin in the conferences called in the early part of the year to consider the urgent problem of unemployment in the industry. Mr. Sydney Tatchell, Mr. Howard Robertson and Mr. Oswald Healing dealt with the several activities of the Council and in particular of the committee specially charged with the task of collecting and disseminating information. Several speakers referred to the general lack of appreciation of the advantages to be derived from building at the present time when costs are at a very low level. The proposals of the committee met with the hearty support of those present and it was resolved that immediate steps be taken to put them into operation. Promises were made of financial support towards the expenses of carrying out the proposals.

The A. A. Prospectus.

We welcome the well-produced and well-edited new prospectus of the Architectural Association just issued. All necessary information is clearly stated and the publication is of such a sort as to give promise for the efficiency of the school. The format of this production is excellent; its simplicity and refinement are quite admirable. Some illustrations of the students' designs and drawings are given but, recalling our visits to the exhibition of students' work, we think a more attractive selection might have been made. The prospectus may be obtained on application to the secretary at 34, Bedford Square. We have also received a copy of the A.A. Year Book for 1932–33. It has been decided to issue in place of the usual year book and diary two publications per annum. One is the Year Book, now published, containing information on matters appertaining to the Association, arrangements for the session, list of members, etc., and the other, a Diary and "Architects' Technical Reference," will be issued late in December in each year. A special committee has been meeting frequently at the A.A. during the past year for the purpose of compiling the technical data for the "Architects' Reference" and has produced a mass of information which the Council believes will be of very great value to members.



From the Exhibition at the R.I.B.A.

The Spire, St. Jean, Basle.

From a drawing by Georges Bouet.

Drawings of Georges Bouet.

The two hundred drawings exhibited in the R.I.B.A. Gallery are part of a magnificent collection of just over 1,500 drawings by Georges Bouet, a French archæologist of the nineteenth century, which Mr. R. Fielding Dodd, F.R.I.B.A., has recently presented to the Institute. Little is known about Bouet, who is not mentioned in any of the French biographical dictionaries. Probably he was so busy making his beautiful drawings that he had no time to become famous. The majority of his published literary work appeared in the 'fifties and 'sixties of the last century in the "Bulletin Monumental," the Journal of the "Societe Française d'Archæologie pour la conservation et la description des Monuments." Bouet was Inspecteur de la Societe Française d'Archæologie, and on his work travelled widely in France and the neighbouring countries, drawing charming trifles wherever he went, with a lively sympathy for architectural qualities and a romantic fervour. The R.I.B.A. collection includes about three hundred drawings made in Italy, over a thousand in France, and about a hundred and forty in Germany and Switzerland. Those shown are a selection from the more pictorial drawings, but a number of his formal architectural drawings are included.

Recent Pictures.

We often see it suggested that more artists should devote their efforts to a representation of the facts and activities of modern life. A very striking and capable illustration answering such a call was to be seen in the recent exhibition of the Institute of Oil Painters in the admirable picture by Leonard Richmond of the new Southampton Graving Dock. The scene of activity, with the number of long cranes at work, is graphically rendered. Surely such a picture should find a place in some public gallery in Southampton. There was a considerable number of good works in this exhibition and especially was to be noted the powerful landscape of "The Storm," by P. H. Padwick. This is a very fine picture.

The City Churches of Norwich.

The city churches of Norwich are the subject of a little brochure by Mr. Claude J. W. Messent, A.R.I.B.A. It is very satisfactory to have views and plans of all these 33 Norfolk churches still existing within the city area of Norwich. Mr. Messent has added greatly to the value of this publication by including much information about all the churches. The churches all come within an area of less than one square mile, and in the 15th century it may be supposed that there were double the number. What makes this publication especially interesting are the careful notes on the buildings and a brief summary of what is to be found of special interest in each church. This is just what one would like to find out about many or all of our old cities, and it will be well if this essay induces others to emulate it. The sketches have all been made by Mr. Messent.

A Courtesy.

It was a pleasant courtesy which was extended to the assessor, Mr. Austen Hall, who was responsible for the selection of Mr. Berry Webber as architect for the new Southampton municipal buildings that he as well as the architect should be presented to the Duchess of York when she formally opened the new buildings last week.

GENERAL NEWS

Knighthood for Architect.

The King has been pleased to approve that the honour of knighthood be conferred on Mr. Arnold Thornely, architect of the new Parliament Building in Northern Ireland.

The Late Sir Mervyn Macartney.

A correspondent writes as follows:—In your memoir of the late Sir Mervyn Macartney I noticed no mention of his design for the Imperial Institute. While characteristic of him, it was quite unlike any of the others submitted in the competition, and, considering the prevalent ideas of that day, little likely to gain him first place, which fell to Collcutt.

Proposed Mental Institution, Morpeth.

The Northumberland County Council, following upon a satisfactory report as to water supply, has decided to purchase a site at Morpeth for a new mental institution. The original cost of the scheme was estimated at £180,000 for the accommodation of 1,000 patients, but this has been reduced to 300 patients. Mr. W. W. Tasker, 17, Claremont-place, Newcastle-on-Tyne, is County Architect.

A Stainless Steel Hotel, Blackpool.

A correspondent writes:—It is proposed to erect at Blackpool a huge hotel, which will cost about £750,000 and will be encased entirely with stainless steel. The hotel, of modern design, will be known as the Sun Ray Hotel. The designs have been made by Mr. J. Massey, L.R.I.B.A., 24, Tontine-chambers, Sheffield, and the building will be built of ferro-concrete and then encased in stainless steel, and is designed so that it will "trap" the sun's rays during the whole of the time the sun is above the horizon.

Chartered Quantity Surveyors' Dinner.

The Chartered Quantity Surveyors' annual dinner will be held in the King Edward VII Rooms, Hotel Victoria, W.C.2, on Wednesday, December 14, at 7 p.m. for 7.30 p.m. Members of the Chartered Surveyors' Institution in practice as quantity surveyors who wish to attend the dinner should apply to the Secretary of the Institution, 12, Great George-street, S.W.1.

L.C.C. and Waterloo Bridge.

It was stated on Tuesday at a meeting of the London County Council at County Hall, Westminster, that Mr. Stanley Baldwin would receive a deputation from the Council on November 25 on the subject of Waterloo Bridge. Sir Percy Simmons said that the position was entirely the fault of the Government, which failed to honour the promise it made in regard to its contribution. The Minister of Transport, he said, thought it was not wise for a deputation to be received until figures in regard to costs were ready. Those figures reached the Council only at the end of October.

Painters' and Decorators' Competition.

Specimens of work submitted by craftsmen and apprentices for the 1932 Competition, organised by the National Painters' and Decorators' Joint Education Committee of England and Wales, will be on exhibition in London as under:—

At the Northern Polytechnic, Holloway-road, N.7. on November 18 (from 10 a.m. to 6 p.m.).

At the L.C.C. School of Building, Ferndale-road, Brixton, S.W.4, on: November 23, 24, 25, 28, 29, 30, December 1, 2, 5, 6, 7 (from 10 a.m. to 8 p.m.); December 8 (from 10 a.m. to 6 p.m.). Admission is free.

An International Designs Competition.

Two British artists have secured prizes in the competition recently organised by the Bureau International des Expositions, Paris, for the selection of a monogram, badge and seal to be adopted by the Bureau. Thirty-nine designs were submitted by various artists from Great Britain, France, Belgium, Sweden and Germany. Of the three first prizes one was awarded to Mr. David Fricker, of Wealdstone, Middlesex, and of the three second prizes one was allotted to Mr. Charles Page, of Luton, Bedfordshire. It is of interest to note that these two students were also both successful in the competition open to students of British Art Schools held last year under the auspices of the Department of Overseas Trade for designs of posters for use in connection with the British Industries Fair.

Sky Advertising.

The General Purposes Committee of the London County Council has considered the Report of the Select Committee on Sky-writing, appointed in March by the House of Commons. Four methods of sky advertising are dealt with in that report, *e.g.*, smoke-writing, signs attached to aircraft, sky-shouting, night sky-writing. The Select Committee do not concur with the opinion, expressed by several witnesses, that the Savage searchlight (by which the normal beam is broken up into a number of subsidiary beams and arranged into a grid) should be universally prohibited for all except national purposes. The General Purposes Committee of the L.C.C., while reserving its opinion on the last subject, recommends that no changes in the existing law are required as regards smoke-writing and signs attached to aircraft, but recommends the Council that if and when there are any signs of its development, sky-shouting should be prohibited by law for all private purposes.

St. Paul's Ecclesiological Society.

The first meeting of the session of this Society was held recently, when, in the presence of a large and appreciative audience, Mr. J. N. Comper read a paper entitled "Further Thoughts on the English Altar," stating that it represented the result of forty years' consideration, and amplified and clarified the previous paper read to the Society in 1893. Chief amongst the points dealt with were the size and shape of the altar; the use of side curtains and posts; the ciborium or baldachino; the pyx; the number of altar lights and other ornaments; and colours. The lecturer said it was more important to consider the law of beauty and truth than "uses," as research discloses general principles rather than detailed codes. Although the speaker did not refer to specific buildings as being his own work, one could visualise St. Cyprian's, Marylebone; St. Mary's, Wellingborough; the Warriors' Chapel in Westminster Abbey, and the many altars to be found in churches all over the country as being from his hand. The paper will be published in full in the next issue of the Transactions of the Society.

COMPETITION NEWS

Proposed Chapel, Hull.

The trustees of the Endyke-lane Methodist Church propose a Methodist chapel on land fronting Endyke-lane. The secretary is Mr. G. Baslington, 10, Elton-grove, Hall-road. A proposal for obtaining schemes from architects is under consideration.

Café and Shelter, Canvey Island.

The Competitions Committee of the R.I.B.A. desire to call the attention of members to the fact that the conditions of this competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

"THE BUILDER" DEBATE

LVI.—RESTRICTION OF ENTRANTS INTO THE BUILDING INDUSTRY.

SIR,—At the risk of outstaying my welcome as a debater, I feel that I must add to my argument matters the omission of which has been used as a point in "Positive's" reply, but which I omitted only on the score of their being somewhat wide of the scope of this debate. "Positive" accuses me of faith in the future without basis for my optimism and without suggestions for reform. I have given several reasons for both: among them the impossibility of postponing building development and repairs indefinitely, and my conviction that our troubles are mainly a matter of currency.

The latter point I have not entered upon further, but not because my ideas are more hazy upon the point than are those of the leaders. I see a country full of goods for sale, and full of people who want the goods but are unable to acquire them, and the mere fact of this absurdity is proof enough to my mind that there is no real cause for distress other than a purely artificial barrier. Let us assume a case.

A builder wants a suit of clothes valued at £7 7s. His tailor wants a room painted and decorated at a cost of £7 7s. The builder can only afford £3 for his suit, and the tailor £3 for his decorations, and both are prepared to spend that smaller amount and no more. By a simple exchange of services on the principle of barter they can both fulfil their desires and each be, in actual effect, £3 better off in available money, in the sense that whereas the suit is an asset in stock, to the one, and the paint and distemper to the other, neither is any real use without a market. Barter can be carried on in simple cases without any disturbance of the monetary system, but is generally impracticable owing to the differences of character and value of the goods and services available for exchange. I have no doubt whatever that under the pressure of the immediate future some form of currency, for internal use only, will be devised, whereby the potential buyers will be able to take the goods and services offered them, and in return find a market for their own goods and services. If we can thus detach from the delicate machinery of international currency that enormous element of internal trade, the future of Great Britain, if not the world, seems assured.

If we lived in a barren land where crops had failed and means of communication closed: where famine stalked abroad and money was useless because there was nothing to buy, I should say indeed that this was the end of civilisation; and should agree with "Positive" that it is useless to train our young men for anything but the grave clothes. But with our troubles hanging only upon the futilities of a common measure of exchange which has proved inadequate for its purpose, I cannot believe that the world has become so barren of ideas as to starve in front of the pastrycook's window.

With such a certain faith in a future restored to the normal, it would be disastrous to leave our young people untrained to take their part in the great work that is awaiting us. NEGATIVE.

SIR,—I do not quite follow "Positive's" line of thought. Each year we turn out of our schools young men ready to start a career. Does "Positive" mean that he would exclude them from any career at all, on account of all trades being depressed; or does he imagine that the building trade is an exception and should alone be excluded? The former seems to be a counsel of despair. The latter seems entirely to miss the meaning of the present industrial depression. Neither offers any solution to the present problem. Both shirk the responsibility which each industry owes to society.

I should challenge also "Positive's" claim that the building industry is always the last to recover. That is far from correct. A large number of new orders for goods does not establish prosperity in an industry. Prosperity is not established until the first orders have been fulfilled and paid for. The orders have not even become book-debts until the goods have been made and delivered. How can orders be dealt with until premises have been put in order and extended where need be? And how can this be done without setting the building industry going again?

OBSERVER.

SIR,—I read "Positive's" suggestions with interest. Do not his remarks apply to all crafts, professions and businesses? Can he name any that are not overcrowded? No doubt there are a few, but they can be counted on the fingers of one hand. What does he suggest these young men should do—go into any trade but the one he is engaged in?

Owing to the universal use of machinery to assist labour, the day is rapidly approaching when work will have to be doled out in the same way as food was dealt with during the War. Even so, who wants to abolish the use of machinery, which has given to the mass what was for the elect few only before the advent of machinery? Also, our high standard of education makes a person realise that he can start in business on his own account even if he has not any capital of his own.

INTERESTED.

SIR,—It would be well-nigh impossible to reply adequately to "Positive's" argument without a full-scale dissertation on the existing political, economic and social conditions: firstly, because the activities of any particular section or industry within the body politic cannot be shut off into watertight compartments, as the actions of the one have their repercussions on the whole; secondly, because the conditions for which "Positive" adumbrates his ameliorative proposal are almost universally admitted to be the result of present-day politics, national and international. Finally, it may be argued that a complete reorientation in the art of government is required before any true and effective solution of our present discontents can be attempted. To propound this case here and on these lines would not, I presume, be permitted. "Positive's" thesis, therefore, is political and non-technical; a political reply, it follows, would be necessary.

What I may perhaps be allowed to say is that it strikes one as decidedly comical that an industry which owes practically all its present miseries to arbitrarily imposed restrictions on its activities should find anyone within it suggesting as a cure "further bites from the same mad dog."

Restrictions and prohibitions under various names and in divers forms, in large and small doses, have been much in evidence and fashion in the post-War period, and nowhere can it be said that they have been successful in improving the conditions they were intended to help.

If "Positive's" remedy has any practical value, the end of unemployment is in sight, because then it would only be necessary to restrict the entry of recruits into any and all industries showing an unemployed residue. And there you are—the millennium! A *reductio ad absurdum*, which seems to prove he wishes to improve the economics of his own industry at the expense of the others.

It hardly needs stating (it has been said so often before) that to bar the entry of any recruit into any trade or profession may be shutting out a potential genius, and it is really a confession of fear of competition to suggest it.

Competition is generally considered to be the special virtue, the very kernel, in fact, of the system of industry, trade, etc., under which we live. The introduction of restrictions on the normal working and process of that system casts doubt, to say the least, on its efficacy, or else, to borrow an Americanism, is like "throwing a monkey wrench into the machinery."

L. W. HARDING.

CORRESPONDENCE

The President's Address.

SIR,—I have read with surprise and considerable misgiving the R.I.B.A. President's address, as reported in the last issue of *The Builder*. If it is not a full report it may be unfair to comment on, or criticise it, and anything I have to say must be taken as based on your report. The most jarring note to the private architect is the enthusiastic support which the President appears to give to the work of municipalities and authorities.

May I be allowed to quote a few sentences from your report of this speech?

"Our municipalities had during the last decade acquired skill and experience in house building and development."

Some private architects (probably hundreds) have spent three and four decades acquiring "skill and experience"; indeed, the average man usually does, if continual employment gives him the opportunity of doing so.

Again: "The Minister of Health had given a handsome testimonial to the efficiency of much housing work for which local authorities had been responsible."

Is the Minister of Health a trained architect? If not, what is his opinion worth?

Again: "He [the Minister of Health] said recently that many authorities building by contract could now provide cottages at £350, all in, and let them with no charge on rates or taxes at 8s. a week."

If this £350 is merely the sum paid to contractors, so could the private architect, if his rent, taxes, staff salaries and motor car were paid for by someone else. What does this £350 actually represent? Does it include all the usual and necessary expenses incurred in running an office?

Again: "It would indeed be folly to check the working of such efficient machinery until some alternative, working side by side, had proved, if not superiority, at least unquestionable equality in the work."

No one qualified to judge will deny that much State and municipal work is of a very high order, but there are unmistakable signs that, in spite of "acquired experience and skill," the standard is gradually being lowered both in quality of material and in design.

It is generally understood that the Institute was founded by practising architects for the promotion of architecture and the protection of the private practising architect, and if the official head of the Institute openly supports and applauds the continuation and spread of a system which is not only against the best interests of architecture, as an art, but against the independence of the free and loyal members of the Institute, then it is about time that these took steps to protect their own interests. One does not expect such a speech to emanate from the very Council chamber of the Institute.

If the State and municipalities confined their activities to slum clearances and maintenance (for which they were originally founded), little or no complaint need be made; but when, as now, they embrace almost every department of architectural practice it is surely advisable to refrain from commendation rather than applaud.

In the last fifty years official staffs have increased in some cases over twenty times, and many new departments have been established. This does not seem to be realised by the Institute. The splendid work done by the Institute is not called in question, both for the education of the architect and the promotion of architecture; but something seems to have gone wrong when such a speech can be delivered by the President without apparently one word of protest from his audience.

Might I be allowed, in closing, to quote from a recent writer, in speaking of the State as it exists to-day?

"It has no vision; it has only expediency. It has no morality, only power, and it will have no arts, for it will punish the free spirit with death. It will allow no freedom, only uniformity. Its altar will be the ballot box, and that will be a lie."

From my conversations with fellow-members of the profession recently, what I have said is by no means a mere personal view.

WILLIAM DAVIDSON.

[Our report was not verbatim, but it gave the substance of the President's remarks. —ED.]

District Surveyors and Their Present-day Qualifications.

SIR,—As far back as 1844 provision was made for the examination of candidates for the office of District Surveyor, and in the Act of that date the Commissioners of Works and Buildings were "empowered to appoint three or more Architects, Surveyors or Builders, together with the said Referees," for that purpose. Since, it has been enacted that no person can be appointed who has not been examined and found competent.

The London County Council has, for some years, itself held examinations to ensure that successful candidates are competent to supervise work of a highly technical character, and it is proposed to hold the next examination during the forthcoming Christmas vacation.

Apart from an intimate knowledge of the general building law of London, including by-laws and regulations, candidates must possess a knowledge of steel-framed and reinforced-concrete construction. This is essential, since a District Surveyor must be competent to discuss problems of construction authoritatively with architects and constructional engineers without indulging in pedantry.

The considerable remuneration enjoyed by a District Surveyor should not be regarded as out of proportion to the knowledge and qualities required, and as the Council will probably be called upon in the coming year to appoint no fewer than four Surveyors, I venture to address this letter to you, in the hope that it may be the means of drawing attention to the Council's Examinations and the opportunities they open to a useful, profitable and honourable career.

ROBERT I. TASKER.

LIVERPOOL ARCHITECTURAL SOCIETY

IN his presidential address to this Society, Mr. Leonard Barnish, F.R.I.B.A., referred to the lack of organised planning, which, he said, was the worst feature of the age. What folly it was to build houses on our fast traffic ways and to neglect the provision of adequate footwalks well away from the kerbs! Surely it was common sense that if a road was required for fast traffic, houses must not be allowed on it. If a road was required for houses, fast traffic must not be allowed. We saw local authorities by-passing a village, but allowing buildings on the by-pass. Soon another road would be required to by-pass the by-pass. Town planners could provide a solution to the killing on the roads. Wider roads were not the solution, but sensible planning. The destruction of the countryside was a parallel problem. It was being destroyed because expert planners were not employed. Great Britain, through its banks and building societies, had presented the speculative builder with the commercial freedom of England. It was to be hoped that a form of legislation might arrive in the near future which would guide and assist those anxious to do the right thing and control those who might be inclined to disregard their duty to their neighbour and the community. Thanks to the efforts of men like Sir Raymond Unwin and Professor Patrick Abercrombie, the past few years had brought about a tremendous advance. Public interest in architecture was never greater than to-day. The leading commercial firms insisted on being housed in buildings worthy of their reputation and standing.

Of the Liverpool Architectural Society, the President said it was strong in numbers and in spirit, in spite of the fact that the profession was going through a period of unexampled difficulty.

THE VILLAGE LAY-OUT

XI.—HORRINGER, SUFFOLK.

By FRANK BENNETT, A.R.I.B.A.

Horringer centres round one of the main entrances to the extensive estate owned by the Marquis of Bristol. It may well be called a patron's village, a village resting in the palm of one man's hand, enjoying his benevolent control and the benefits of his wealth.

The layout displays the curious feature of a major road leading off a minor road, of a wider new road suddenly overpowering the importance of a road which before ranked as a main artery. The new road, which leads off to the Marquis's home, trusses itself to the lesser road by a triangulation of pathways intersecting the spacious and well-tended village green, picked out with carefully mown grass margins. This approach immediately attracts one's attention, both by its opulence and large scale, if not so much for the excellence of its detail.

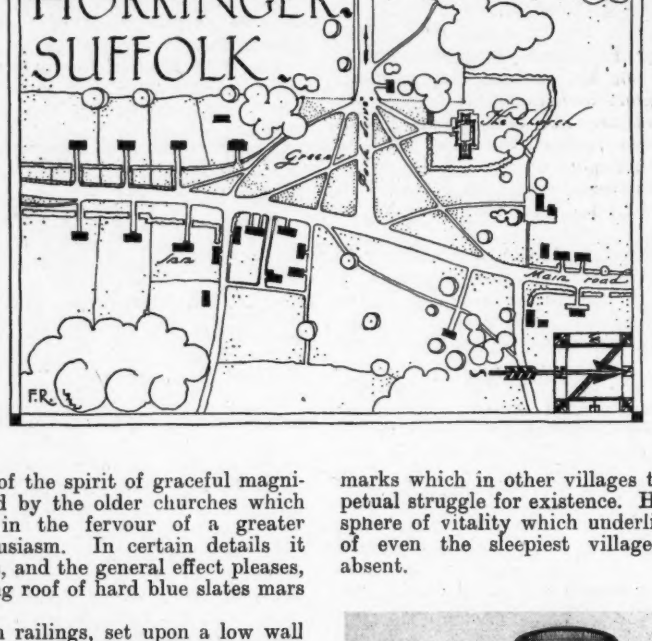
The main body of the village, extending southward along a straight road, consists of an orderly rhythm of cottages spaced widely at open intervals, each cottage facing inwards and enjoying the seclusion afforded by a private garden held within its own enclosing walls. Thatched cottages alternate with an eighteenth century type of flint and brick dwellings. The high roof pitch of the one type contrasts with the low pitch of the other, and modest chimney stacks emerge from the ridges with neat regularity. The presence of unassuming gabled porches distinguishes the thatched cottages from their simpler neighbours, while both types display a reasoned and sympathetic use of local materials. Unfortunately, an ugly chimney-pot added here and there, while speaking of the reasonable endeavour to provide every comfort for the cottagers, tells of a strange disregard for the more subtle necessity of preserving architectural values. The projecting chimney-pot, breaking up the clean run of a silhouette line, is a common disfigurement of our country villages, and one of architecture's worst enemies.

Entrance to the Park, Horringer

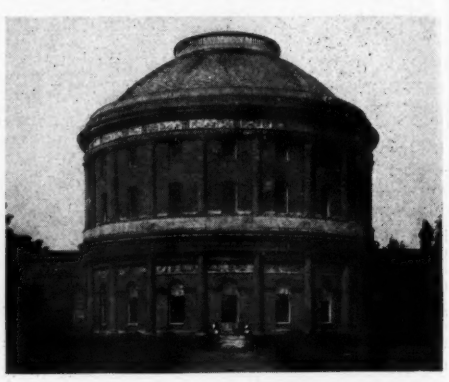
Going back to the village green, one observes how the church, set against a thick background of spreading trees, and approached across the flat expanse of close-mown grass, occupies a position subservient to the dominance of the main entrance. It is a flint-and-stone building of the Victorian period, whose modest proportions suit its position of dependence. At the same time, it endeavours to catch some of the spirit of graceful magnificence radiated by the older churches which were created in the fervour of a greater religious enthusiasm. In certain details it nearly succeeds, and the general effect pleases, but a forbidding roof of hard blue slates mars its beauty.

Weighty iron railings, set upon a low wall and strutted at regular intervals by powerful iron stays, butt up to thick-set, stuccoed gate-piers which, capped with flamboyant vases, serve to guard the entrance to the park. The gates themselves, slightly higher than the railings, were cast in lusty sections and hung with extravagant security. Supported on quadrants let into the ground, these gates still wheel with ease in spite of their great weight, and remain in a condition probably as perfect as on the day they were made.

Inside the park the drive leads on at great length, affording occasional glimpses of young deer, squirrels and rabbits frisking among the trees. As the road continues on indefinitely, and the Marquis's house seems nowhere to be found, suddenly through a tall clearing a vast rotunda looms into sight. The detailed magnificence of its two monumental stories, classically decorated with superimposed orders, then surmounted by a shallow dome clipped off by a balustraded belvedere, and finally terminated by a lofty flag mast, is thrown into strong relief by the dense green of the enclosing cyprus trees. This, in fact, is not a two-story building, but one vast galleried hall. The decision of its shape, viewed from the outside, recalls in one thought both the Pantheon and the Albert Hall. While serving as a grand climax in itself, it is only the introduction to an enormous house which spreads out enclosing wings on each flank.



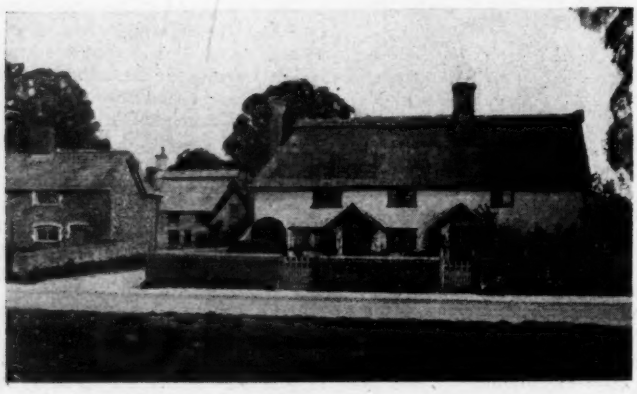
The rapid change of scenery on leaving the park provides the anti-climax to the spectacle. The roads deteriorate, the shrubbery straggles out over less formalised country, and cottages again punctuate the open spaces. Finally, a farm gate announces the beginning of another village, different in itself from Horringer, but carrying the same atmosphere of unharassed security. One misses those distinguishing marks which in other villages tell of the perpetual struggle for existence. Here, the atmosphere of vitality which underlies the routine of even the sleepiest village is strangely absent.



The Rotunda, near Horringer.

Town Planning South London.

The Town Planning Committee of the London County Council is considering the desirability of making a scheme to control land comprising a total of 1,324 acres situate at Blackheath, Clapham, Grove-park, Norwood, Stockwell, Sydenham and Tooting. A map indicating the precise areas is on exhibition in the Ambulatory to the Council Chamber at County Hall. Control over the number, height and character of buildings is aimed at.



Stucco and Flint Cottages, Horringer

Cottages at Horringer.

ILLUSTRATIONS

PLATES

St. Andrew's Church, Luton.

This church stands on an open and well-elevated site near the junction of Blenheim-crescent and Argyll-avenue. The main block consists of a wide nave with narrow aisles (the latter not being used for seating purposes), a western tower, and chancel. The vestries adjoin the chancel and project northward, while the lady chapel is on the south side and adjoins the easternmost bay of the nave.

The general note of the design is width and spaciousness rather than height, and a special feature of the exterior is the row of buttresses along each side, which resist the thrust of the transverse arches supporting the roof. The nave and chancel are lit by rows of clerestory lancet windows. There is also a west window in the tower. The organ is placed in a western gallery, the console, however, being grouped with the choir stalls.

The church is faced externally with bricks of a brownish red, and a feature is made of the pointing. Internally, the walls are plastered; stone has been only sparingly used. The roof is covered externally with specially made "small Lombardic" tiles, the constructional timbers and boarding of this roof being exposed inside. The floor throughout the building is composed of "Granwood" slabs. The heating-chamber is placed under the tower, at the west end, and a system of floor-heating has been adopted, and only a few radiators in certain positions which do not lend themselves to floor-heating have been used. Lighting is by means of electric pendants, suspended from the roof. The builders were Messrs. Arthur Oakley, of Luton, and the following firms were associated with the work:—Concrete, Ltd., reinforced concrete; Ragusa Asphalt Co., asphalt; Haden and Son, heating and lighting; Charles Bird and Son, Ltd., Luton, glazing; Gibbons and Co., metal casements and ironmongery; Leeds Fireclay Co., sanitary fittings; Granwood Flooring Co., Ltd., flooring; Nairns and Stanbank, bell; Arthur Oakley, Luton, oak fittings and choir stalls; Walton and Co., reredos main altar and chapel; Mariner and Co., Luton, altar cloth, altar frontal, and candlesticks.

Sir Giles Scott, R.A., F.R.I.B.A., is the architect.

Southampton Civic Centre.

When contemplating the first completed block of the new Civic Centre, it should be borne in mind that, although it appears and functions as a separate entity at present, in the complete scheme it becomes a unit of a group of four buildings, intercommunicating and knit together to form a complete whole. This applies in the architectural as well as in the working sense; therefore it must be remembered that the present effect of a long, low, isolated building will pass, and later it will take its correct place architecturally as a flanking appendage to the high mass of the great assembly hall.

The chief approach is from the south across a spacious paved courtyard, and the careful stepping of the sloping site to the horizontal lines of the building has solved the difficult problem of the levels. The building roughly divides into three portions. That in the centre facing the courtyard is given over mainly to the principal rooms—such as the council chamber, the civic suite, members' and committee rooms. The wings contain respectively, on the west the various engineering departments of the Corporation, and on the east the town clerk's and borough treasurer's departments. The main entrance, or civic approach, is given its due emphasis, and as the focal point of the elevation, some interesting detail is concentrated here.

Entering the main door one traverses the vestibule with its black and silver grilles on either side enclosing the inquiry offices, and enters the central staircase hall with its high barrel ceiling and double flight of stairs, providing a direct and dignified approach to the most important room in the building — the council chamber on the first floor. The wide central corridor which divides the stair flights is on the main north and south axis of the whole scheme and will eventually provide the main approach from the first building to the large assembly hall—emerging on the far side of the hall and terminating at the main north entrance to the future art school. The north and south corridors connecting the subsidiary entrances will also link up the future units of the scheme in a similar manner.

From the central staircase hall corridors to right and left provide circulation throughout the offices. It is interesting to note that owing to the fall across the site from east to west, the ground-floor level on the east wing becomes the first-floor level in the west. In consequence the basement floor, which is given over to storage in the east wing, becomes a floor above ground at the west wing.

The main staircase hall is the most impressive interior with regard to scale and size. The walls are Painswick stone from Gloucestershire, and the ceiling of fibrous plaster—plain at the moment, but a fine background for future decoration. The slope of the stair balustrade is pleasantly interrupted at half-landing level by the introduction of finely carved stone rostrums.

The council chamber is square on plan with a low gallery round all four sides, and a deeply recessed flat ceiling. From the floor to the top of the gallery balustrade it is panelled in English walnut. The walls above are covered with acoustic tiles, and the ceiling is of fibrous plaster inset with panels of acoustic plaster. Another departure from the usual council chamber is noted in the seating, the blue leather upholstering of which, impressed with the town arms in gilt, makes a pleasant contrast to the mellow tones of the woodwork. The members' desks are fixed and the members are provided with comfortable tub chairs. The mayor's chair is richly carved with the town arms. The centre portion of the ceiling has glass panels which admit the hidden lights in the roof space, and further light is thrown on the ceiling by the standards on the gallery front.

The building is constructed in the form of a light steel frame resting upon a foundation of reinforced concrete. Although the site under test was found to take considerably more load per square foot than the building imposes, at the same time it was discovered to be somewhat patchy. Therefore, instead of providing individual foundations to the stancheons it was decided to introduce a "strip" reinforced concrete foundation in order to spread the load to better advantage. The whole of the exterior is covered with Portland stone, the sloping roofs are covered with copper, and the flat roofs are of asphalt incorporating a layer of insulating material to reduce the effect of external conditions upon the room immediately beneath. The floors and flat roofs are of modern ferro-concrete and tile construction. The hardwood floors and wood blocks internally are of "Karri."

Mr. E. Berry Webber, A.R.I.B.A., is the architect, and Mr. F. J. Clevely, F.S.I., the quantity surveyor.

The names of the firms associated with the work are given on page 869.

Design for a Swimming Bath.

This swimming bath (awarded the British Institution Scholarship) is for a public school of 300 boys, on a site immediately facing the playing fields. The walls are faced with multi-coloured bricks which are carried up to the lintol level of the gallery windows. The roof is covered with pantiles. The two main entrances for the boys are arranged on the east and west elevations, and a subsidiary entrance for parents on the south. This subsidiary entrance also has direct access to the gallery on the south front which also overlooks the playing fields. Directly beneath this is placed a room for the swimming instructor and his assistant, and also a large store-room for games, etc. The boiler and filtration rooms are situated in the basement on the north side of the bath.

The design is by Mr. A. F. Evans, of the Royal Academy Schools.

ARCHITECTURAL ASSOCIATION

THE MODERN INN.

A LECTURE dealing with the architecture of inns, public-houses and hotels was delivered last Saturday by Mr. Joseph Hill, F.R.I.B.A., at the Architectural Association, Bedford-square. Mr. Basil Oliver, F.R.I.B.A., presided.

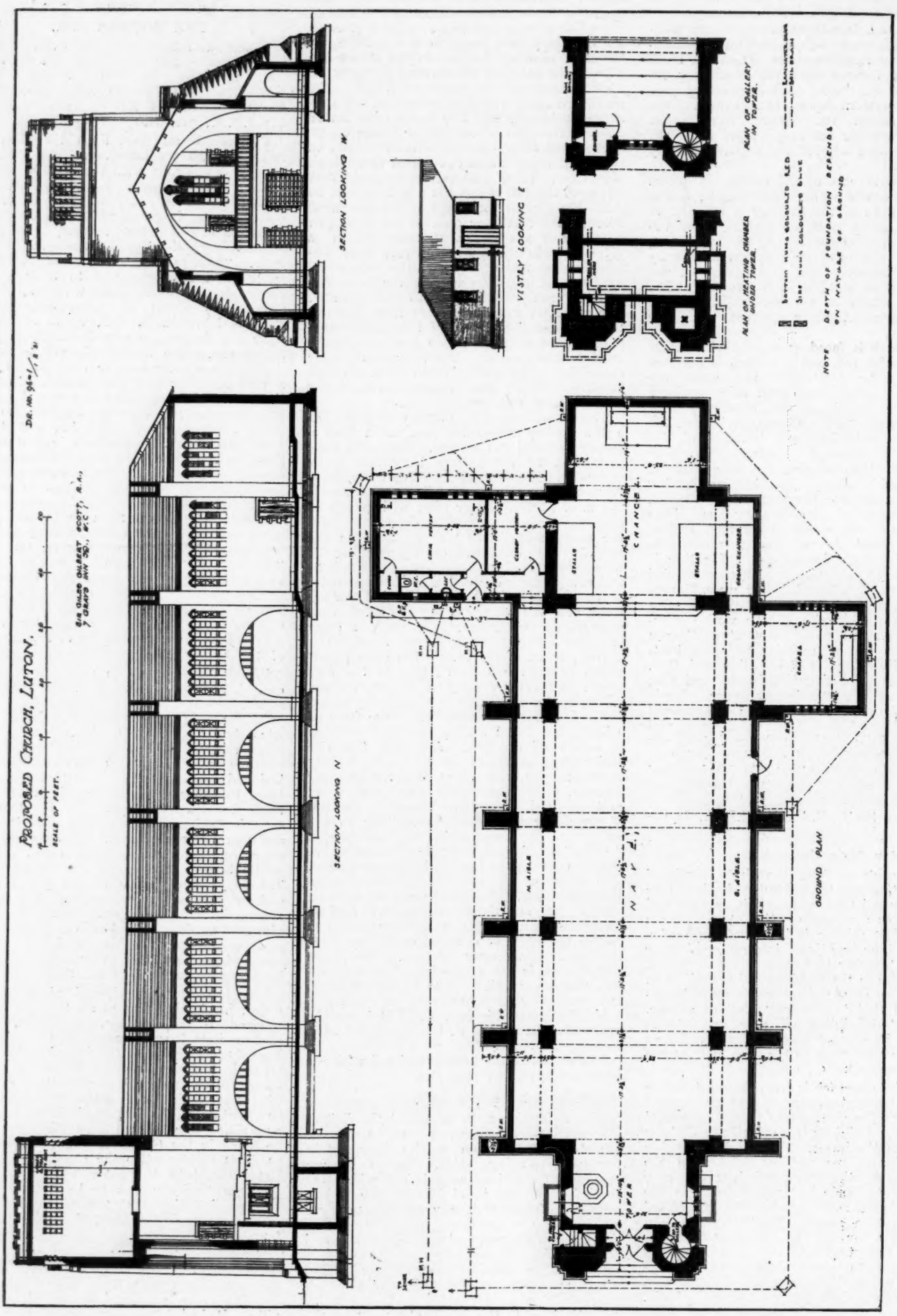
The lecturer said that the old English inn had possessed an importance and sense of dignity comparable with that of the church which was frequently its neighbour, but during the latter half of the nineteenth century the larger and more successful examples of the inn or licensed house were often vulgar, ill-designed monuments of bad taste. "Gin palaces" they were sometimes called, and having regard to their gawdy decorations, dreadful glass windows, coarse ostentatious detail in stonework, brickwork and woodwork and, above all, their signs and lamps, he considered the term a fitting one. The smaller licensed house or "pub" was often a mere scandal. It was a good thing for everyone concerned that, as the result of co-operation between brewers, property owners, licensing magistrates and other authorities and, last but not least, architects who had specialised in that direction, a great number of those buildings had disappeared, and many rebuildings and remodellings had been carried out in recent years. Excellent work in that connection had commenced before the War, but although intentions were good and plannings skilful, too frequently the result was an imitation "Tudor" or "Old English" inn; and even to-day really good schemes were being ruined as the result of building owners and their architects clothing great licensed houses with a sham half-timbered cloak, which could never express either the plan or construction of the building.

Whilst he was not an advocate of State control, and thought brewers had shown an admirable spirit in the crusade for the better public-house, there could be no doubt that what had happened in Carlisle and other areas controlled by the State Management districts under the ægis of the Home Office, had had a salutary effect. With few exceptions the licensed businesses in those districts had been taken over by the Government in 1916, and after careful consideration and survey important steps had been taken to alter, remodel and, in some cases, rebuild public houses. Some were done away with. The big chance had produced good work, and not only in the architecture. The happy surroundings, the good furniture, the pleasant gardens and bowling greens, the good catering and cooking, and the cleanliness and good order of everything would delight anyone who might use those inns.

The lecturer then showed about eighty slides, illustrating first of all the inns above referred to in Carlisle, and afterwards, modern inns from all parts of the country. He called attention to the ingenious features of their planning, and to the dignity and beauty of their elevations with their general air of restraint and good craftsmanship. One section of the lecture dealt with signs, and slides were shown illustrating signs to be found in the Guildhall Museum produced at dates shortly after the Great Fire. The lecturer said he thought it a pity that to-day the tendency was to be content with painted lettering on the signboard, but modern examples of good signs were to be found.

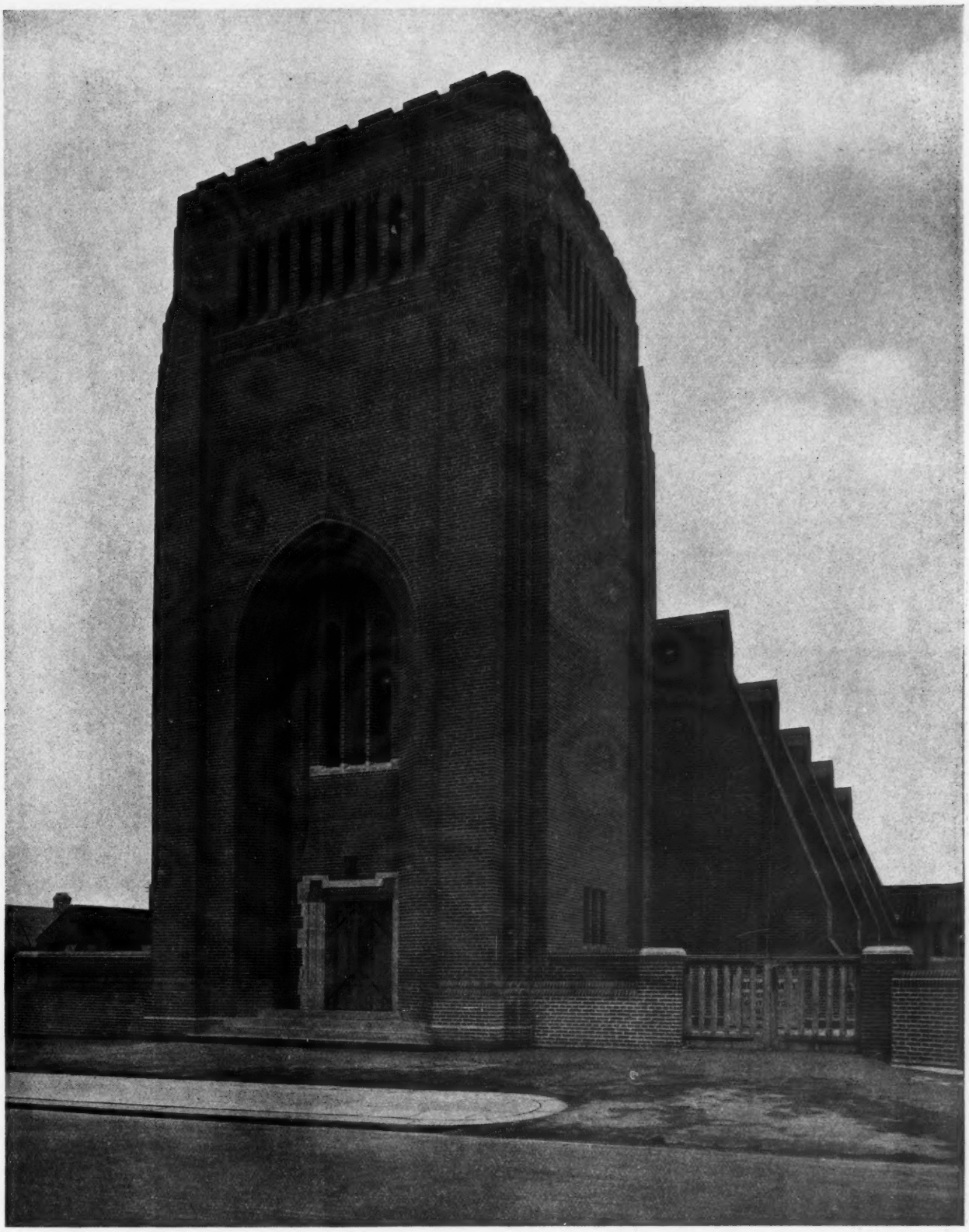
Concluding, the lecturer said that the public-house as a building had gone through the same vicissitudes as its neighbour, the dwelling-house—whether terrace house or villa. It had been characterised by coarse decoration and misapplied detail. Meaningless features, spikes and turrets had "adorned" it, but at its worst it could stand comparison with other buildings.

Votes of thanks were passed to the lecturer and the chairman.



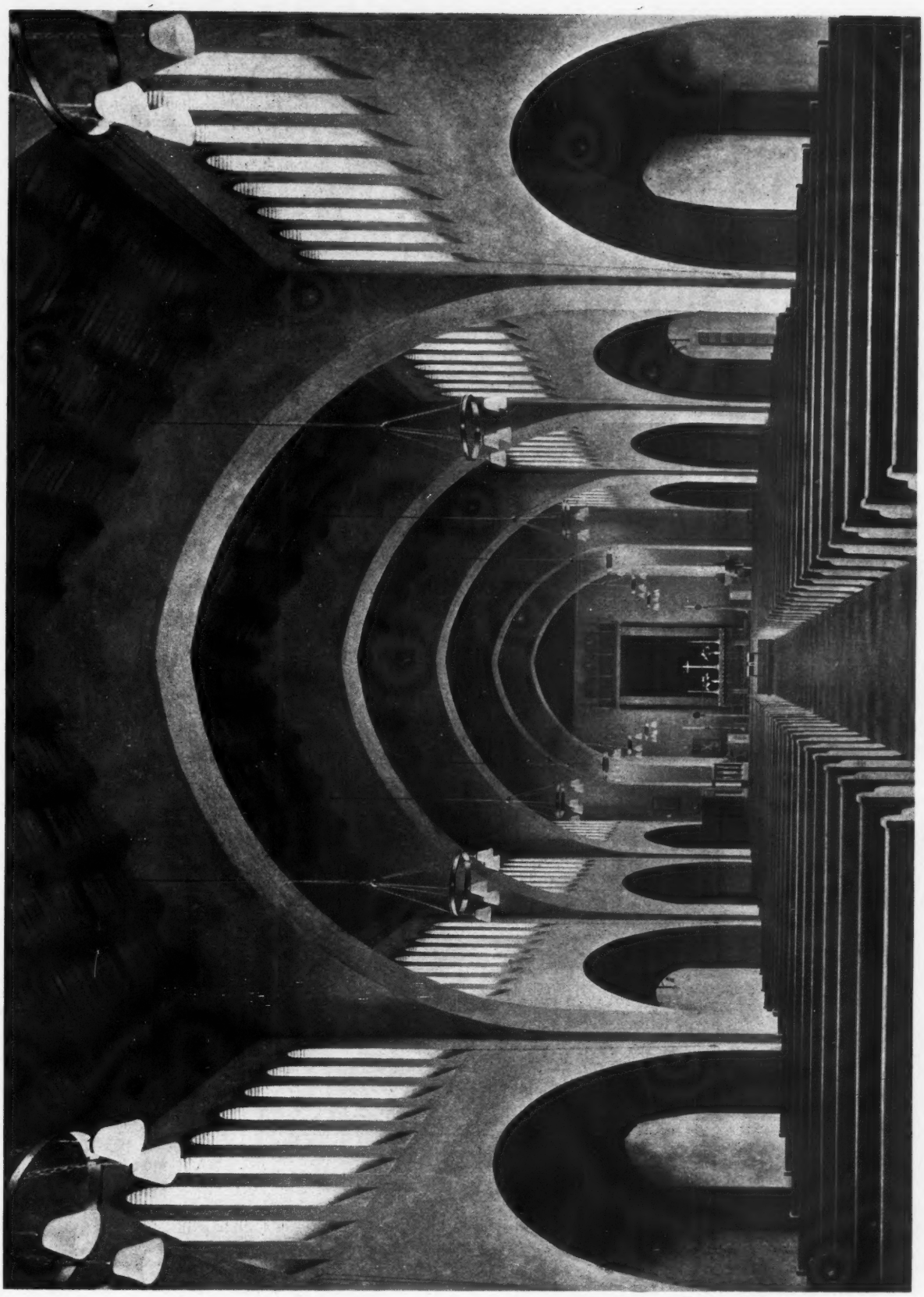
St. Andrew's Church, Luton.

SIR GILES SCOTT, R.A., F.R.I.B.A., Architect.



St. Andrew's Church, Luton: View from South-West.

SIR GILES SCOTT, R.A., F.R.I.B.A., Architect.



St. Andrew's Church, Luton : The Nave, looking East.

SIR GILES SCOTT, R.A., F.R.I.B.A., Architect.

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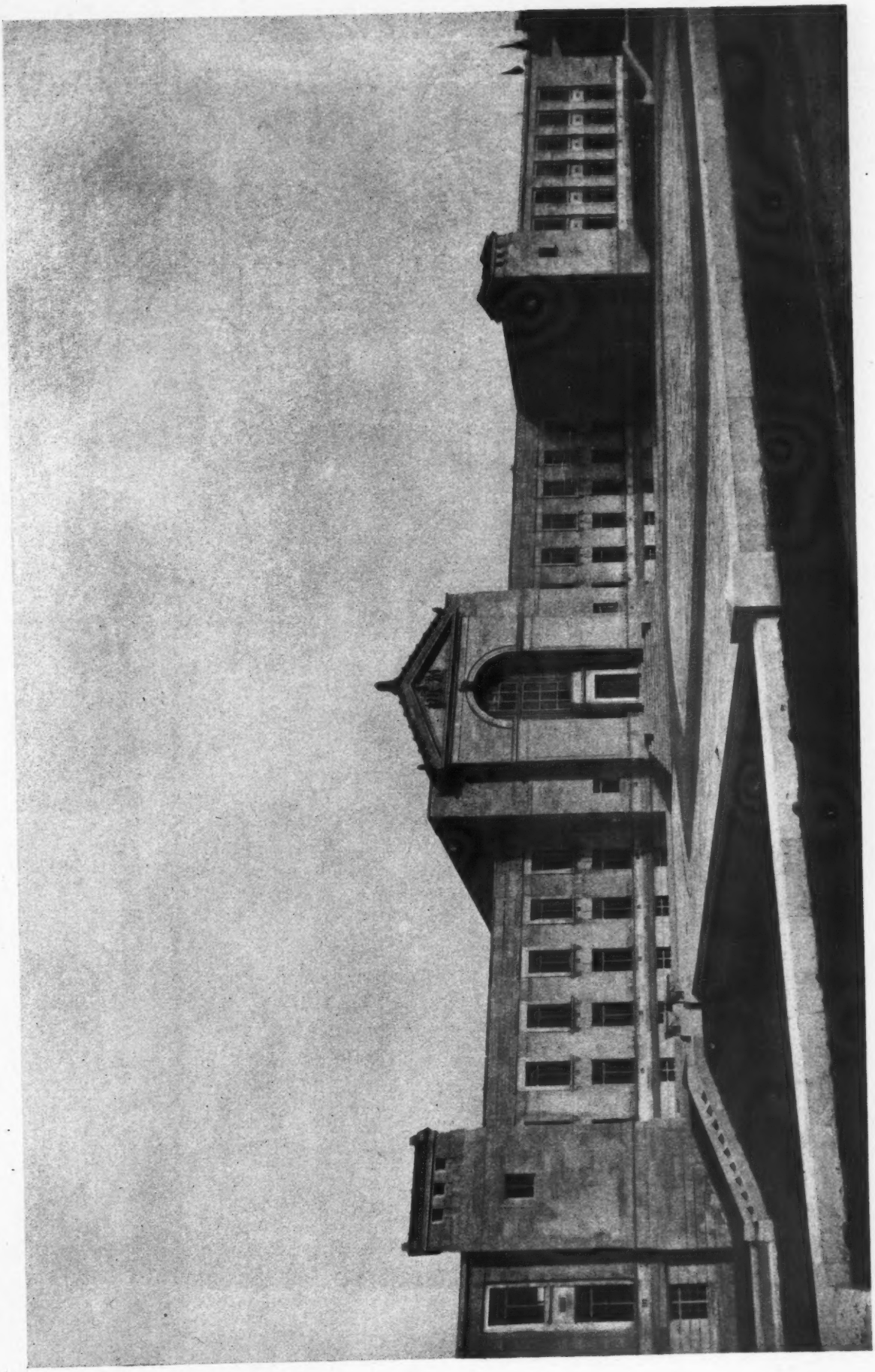
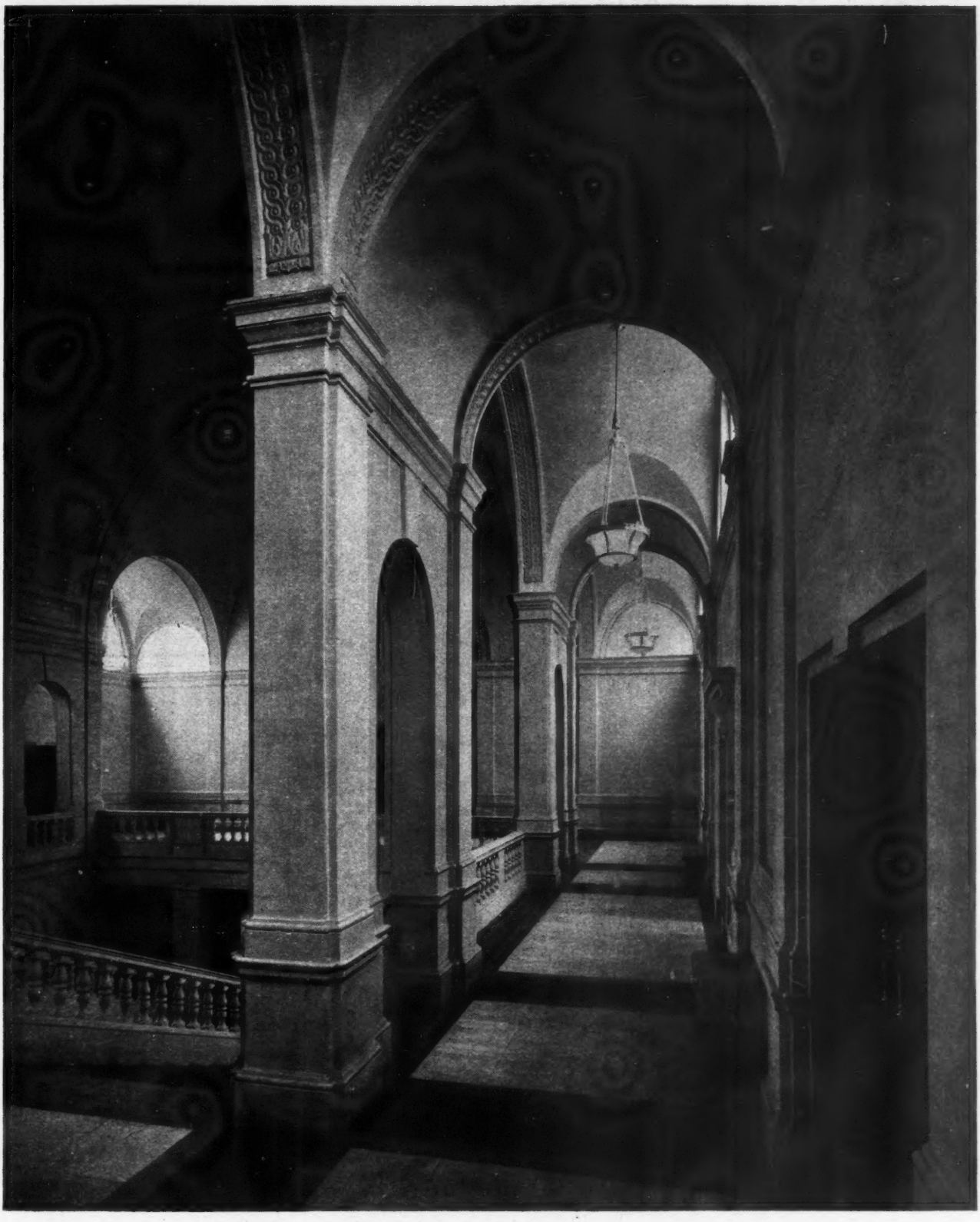


Southampton Civic Centre : Municipal Offices.

Mr. E. Berry Webber, A.R.I.B.A., Architect.

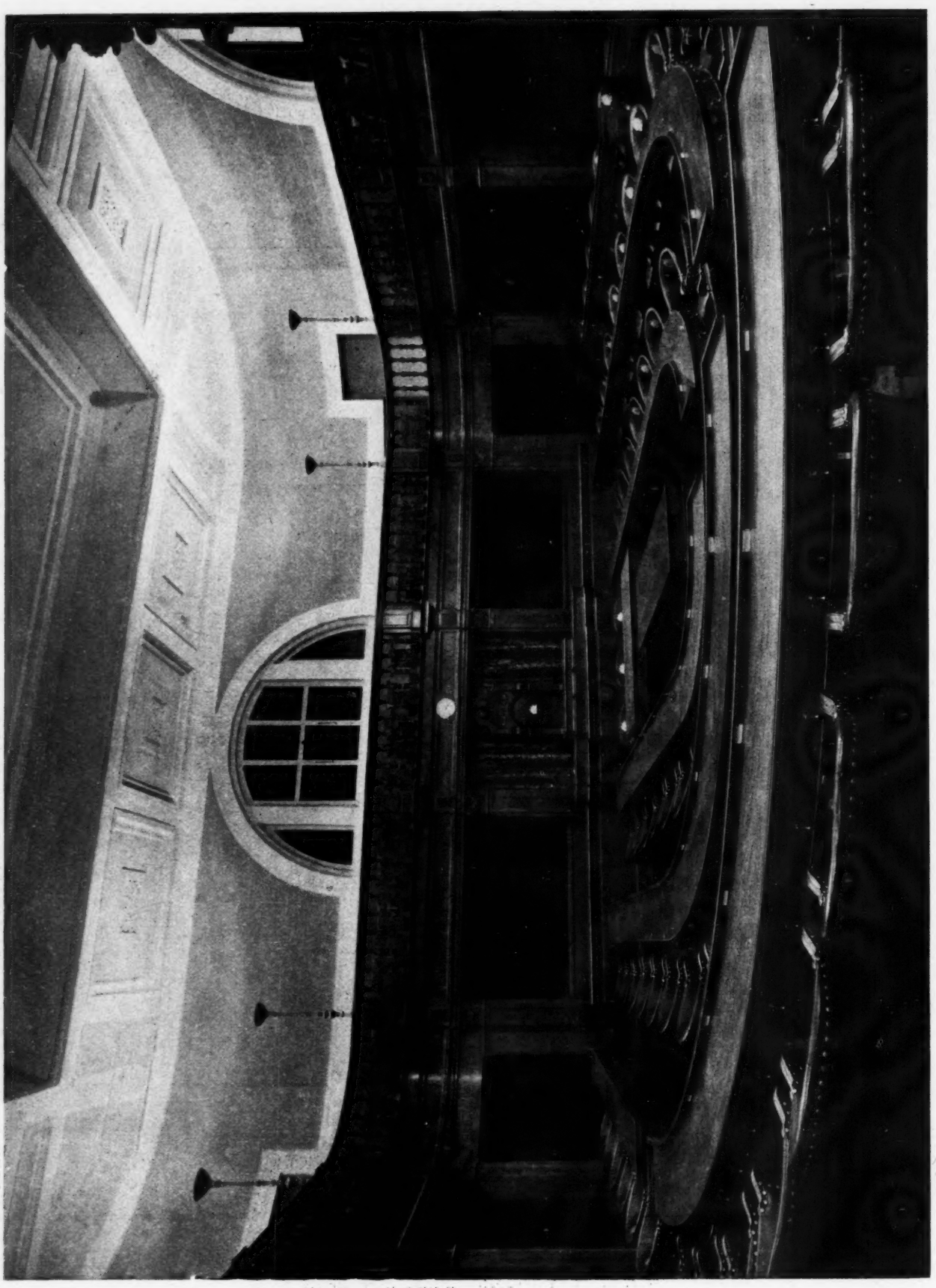
Southampton Civic Centre: Detail of Staircase in Municipal Offices.

MR. E. BERRY WEBBER, A.R.I.B.A., Architect.



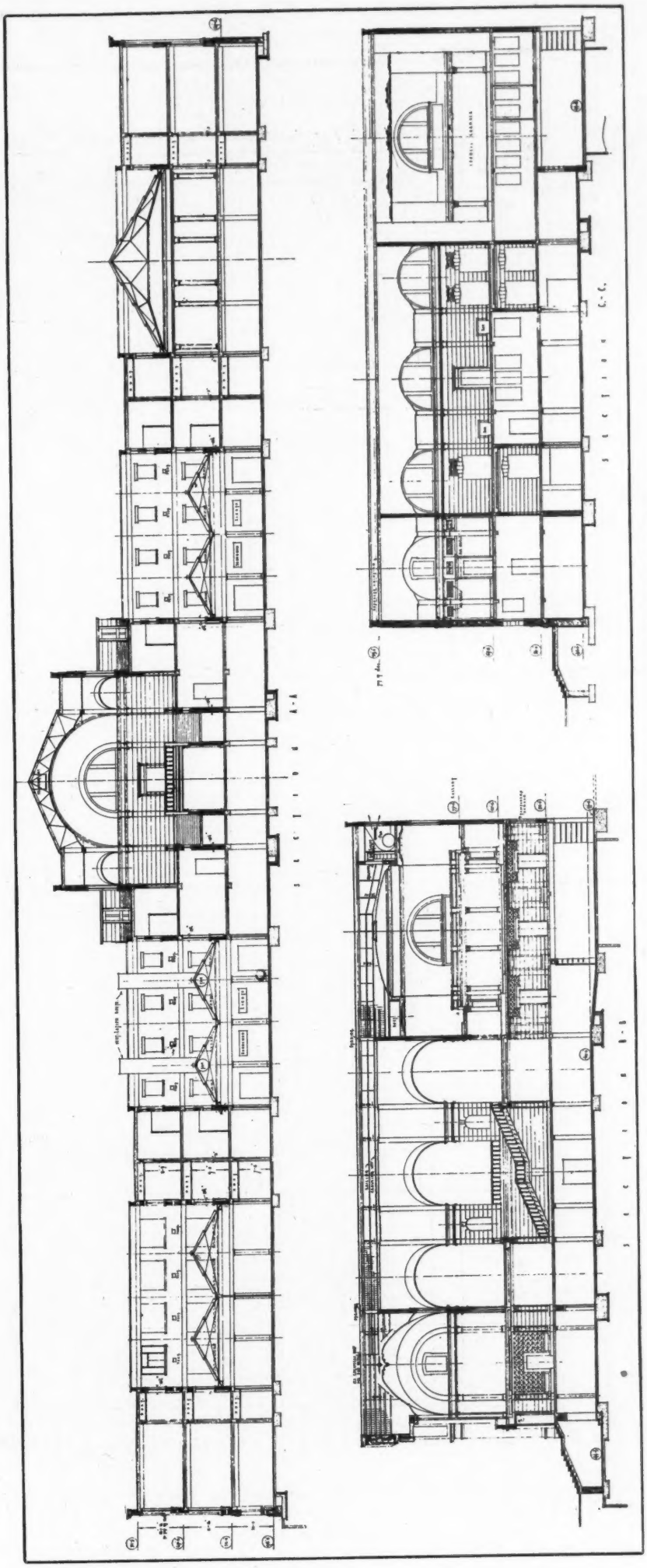
Southampton Civic Centre: Staircase Landing, Municipal Offices.

MR. E. BERRY WEBBER A.R.I.B.A., Architect.



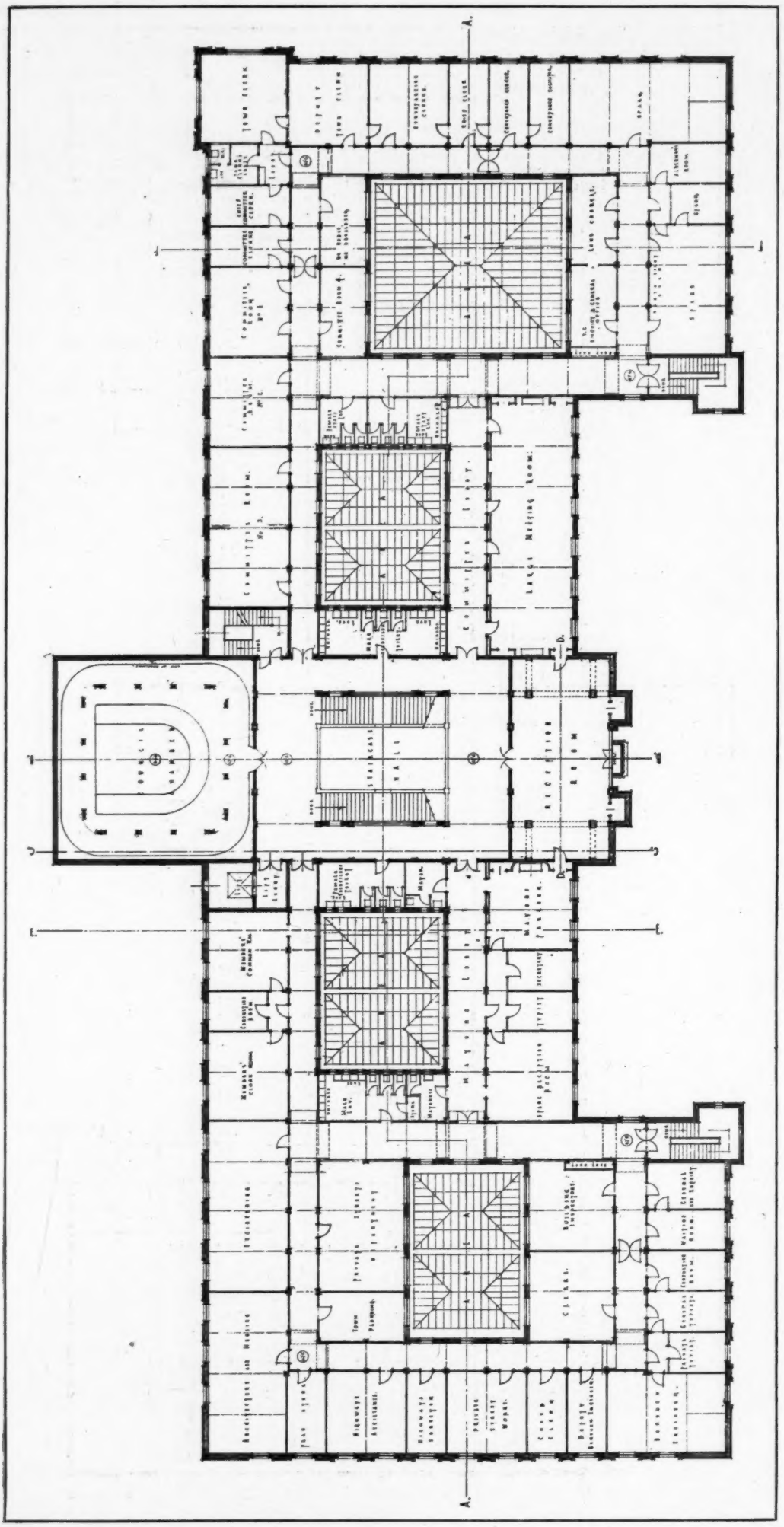
Southampton Civic Centre: The Council Chamber, Municipal Offices.

MR. E. BERRY WEBBER, A.R.I.B.A., Architect.



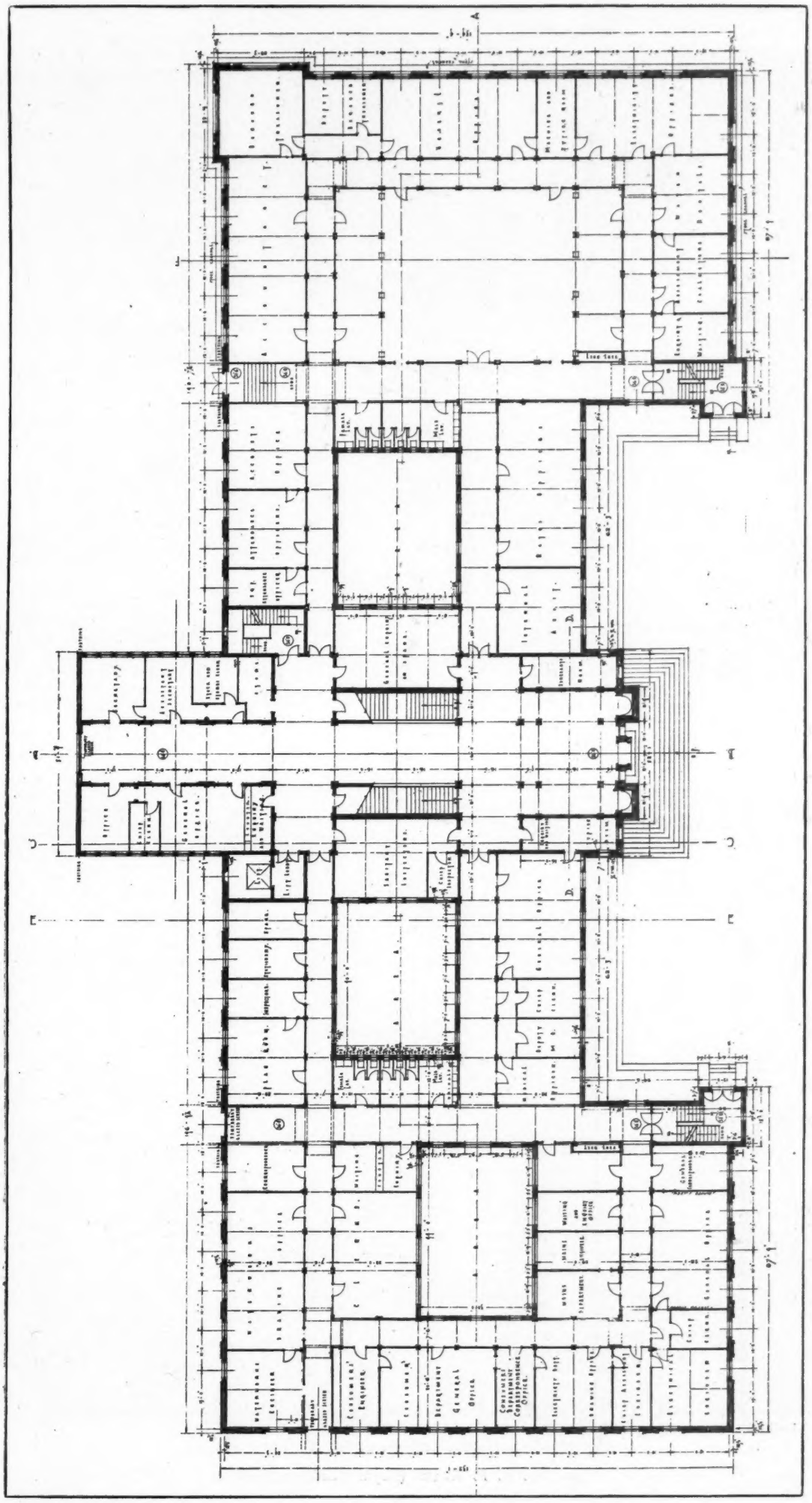
Southampton Civic Centre: Sections through Municipal Offices.

MR. E. BERRY WEBBER, A.R.I.B.A., Architect.



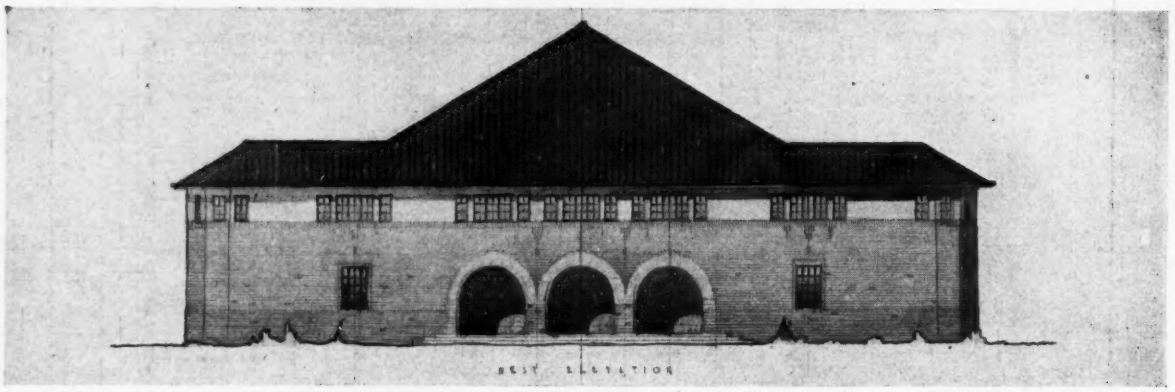
Southampton Civic Centre: First-floor Plan, Municipal Offices.

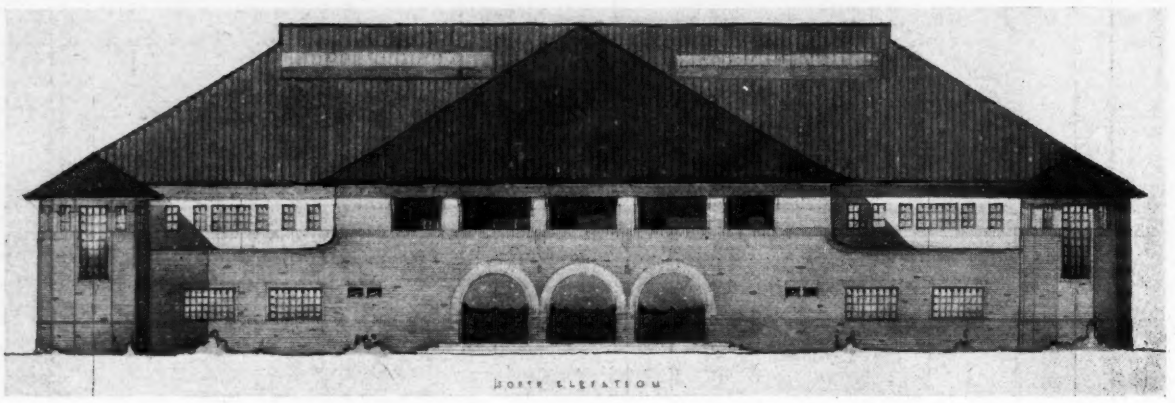
MR. E. BERRY WEBBER, A.R.I.B.A., Architect.

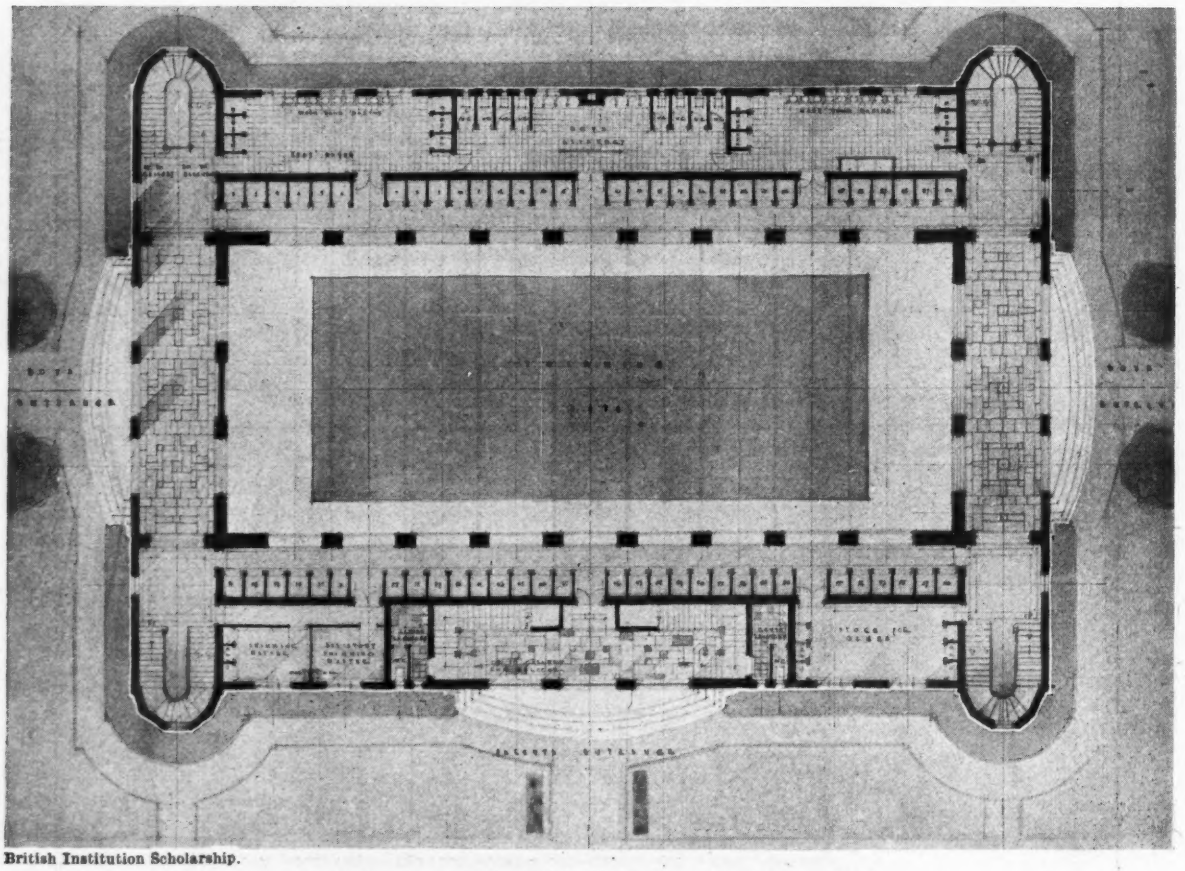


Southampton Civic Centre: Ground-floor Plan, Municipal Offices.

MR. E. BERRY WEBBER, A.R.I.B.A., Architect.



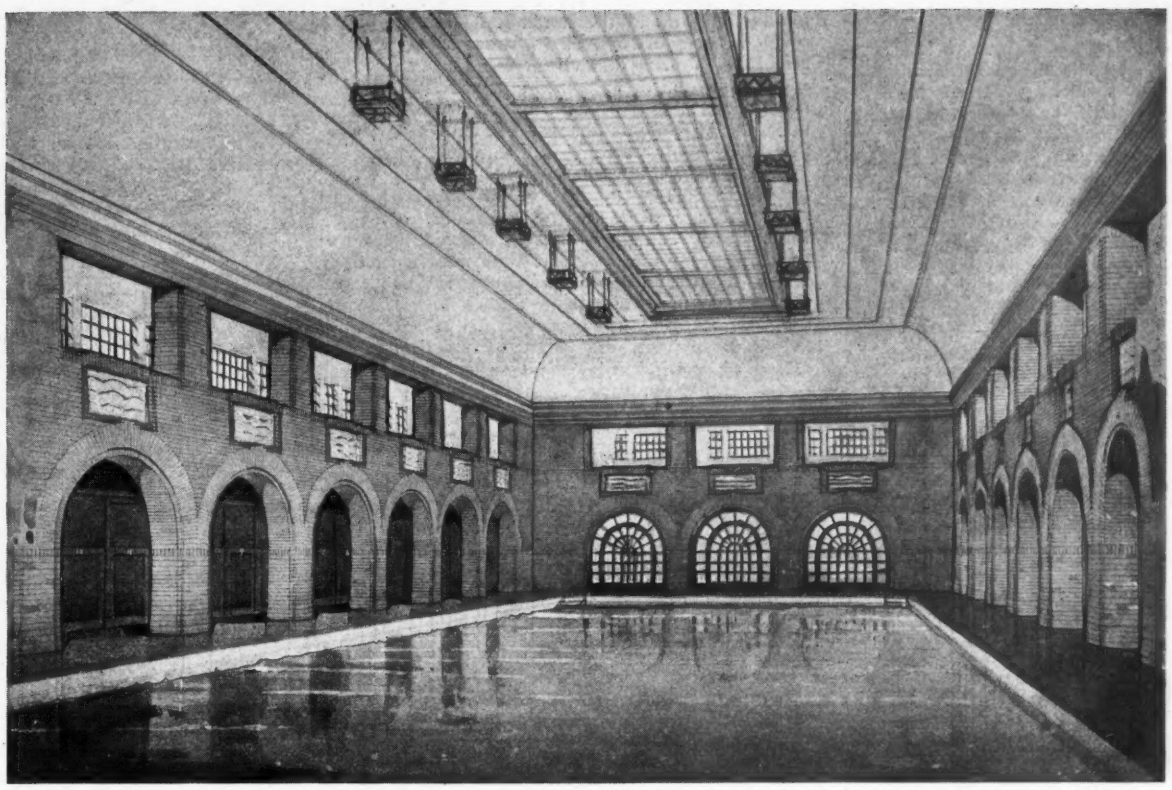




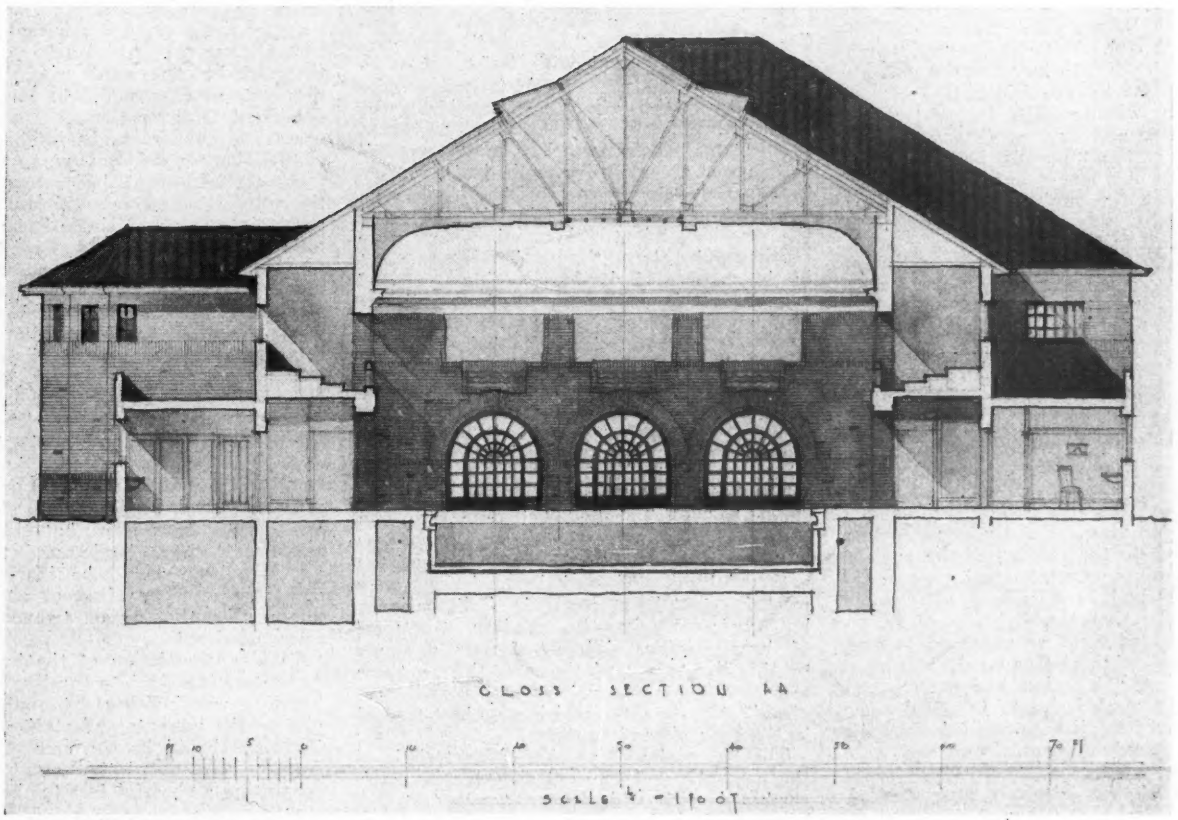
British Institution Scholarship.

Design for a Swimming Bath for a Public School.

By Mr. A. F. Evans (Royal Academy Schools).



Perspective View of Swimming Bath.



British Institution Scholarship.

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MODERN HOSPITALS

In the course of a lecture on this subject before the Sheffield, South Yorkshire and District Society of Architects and Surveyors at Sheffield University on November 10, Mr. Lionel G. Pearson, F.R.I.B.A., stated that a leading Melbourne architect who has travelled all over the world studying hospital problems considers in England we were definitely falling behind, and that our hospital programmes were lacking in vision. He had said that in the future design of hospitals, the comfort of the patient should be considered first, whereas the convenience of the staff had been the ruling factor so far. But, speaking from personal knowledge, said the lecturer, the staff of hospitals (both medical and nursing) in this country was already very overworked, so that any new arrangements must not put further pressure on the staff. Compact planning, avoidance of long corridors and centralisation of services must be the rule, and labour-saving appliances must be installed where necessary. At the same time, there were certain demands made by modern science and medicine which must be met. The desire for greater window space which was characteristic of this period when fresh air and sunlight were known to be of the greatest importance in the treatment of the sick, must be expressed in the elevations and the ample provision of balconies must be an important part of the design.

Orientation.

The Report on Orientation of Buildings recently published by the joint committee of the R.I.B.A. included a valuable chapter on "Hospitals."* Florence Nightingale was quoted as saying that "all hospital buildings in this climate should be erected so that as great a surface as possible should receive direct sunshine, and that the window space should be one-third of the wall space." That was written in 1869, and as a result of her efforts the cross-ventilated hospital ward with a window between each bed was evolved. That type had certainly stood the test of time and given excellent results, particularly where the axis is N. and S. and there was a sun balcony at the S. end. But changes had taken place of recent years to increase the amount of sunshine; first by the elimination of the sanitary towers which usually flanked the balcony at the S. and still more recently by the adoption of the "parallel bed" system, which resulted in a longer but narrower type of ward, where the sun's rays had greater penetration (that was cleverly demonstrated by the diagrams in the report). The "parallel bed" system had the further advantage that the light was not directly in the patients' eyes as in the "standard ward." A firm of manufacturers had designed a glazed metal screen for use in the "parallel bed" ward with special provision in the centre style for lighting wires, etc., and that was fixed 6 in. away from the wall, and had a space of 12 in. between the bottom rail and floor.

From the point of view of supervision, the "standard" type was preferred as a rule by the nursing staff, because the faces of all the patients were in view. But the other system added so much to the comfort of the patient that its advantages were more and more recognised, and it had been proved after some months of trial that the difficulty of supervision was not as great as appeared at first sight. Altogether there was no doubt that a new era in hospital design had begun, and there was a general desire to benefit by the work of experimentalists, provided that the results were based on sound lines, and were likely to stand the test of time. If the plans of German post-War hospitals were studied, it would be found that the most favoured arrangement was to place the patients in wards facing south containing two, four or six beds, with a corridor on the north side. That was in many ways the most suitable to our northern climate, as it allowed large windows on the south, and a corridor affording protection from the cold winds on the north. At the same time cross-ventilation was not ruled out, as in hot weather borrowed lights opening on to the corridor might afford the necessary flow of air. It must be remembered that undue exposure to the north and east might cause intense discomfort to the patient and result in lowering his vitality.

The question of balconies and windows was almost as important as the arrangement of the wards. The number of patients able to use an open-air balcony in fine weather was given by a well-known hospital secretary as 25 per cent. for the medical wards, 35 per cent. for the surgical wards and for children's wards 90 per cent. The objection to a glazed sun-room was that that was in time likely to be used as part of the ward, and a further sun room had to be added if the site allowed, so that the process might go on indefinitely. An open-air balcony running along the south front was ideal as far as the exposure was concerned, but if repeated on several floors had a bad effect in shutting out light and air from the wards. A better solution would seem to be to adopt French windows with narrow balconies or railings in the thickness of the wall.

There was no end to the variety of the possible arrangement of wards, windows, balconies and sun-rooms. The sun-room particularly was a most interesting architectural problem. The cast-iron balcony type with glazed roof was not a satisfactory termination to a ward, though it had the advantage of being light in construction and did not obstruct the light. The more architectural treatment with classical columns and flanking towers though imposing had been found to obstruct the view and sunlight. Concrete construction had freed the designer from either of those alternatives, and had made it possible to design a sun room with wide openings which could be filled with sliding windows for use in bad weather.

The "Terrace" System.

The "terrace" system of construction had been freely adopted on the Continent, and had resulted in very interesting designs, particularly where those "terraces" were connected to the ground with flights of staircases. Those staircases could be made quite architectural, thus affording a solution of the fire-escape staircases which so often disfigured the design of the ward. But the "terrace" system was an expensive method of construction, and led to a great waste of space on the lower floors unless, as had been done in the new hospital at Colmar, the floors were cantilevered over on the north side somewhat in the manner of the overhanging stories of a mediæval city. However, under conditions of financial stringency, those expensive experiments were not likely to become usual. One of the minor difficulties of the "terrace" system was that a weather tight threshhold to the windows opening into the ward was not easy to design, as the check must not be too great, otherwise it would be difficult to wheel out the beds. There had been various other designs, such as the V-shaped bay to single bed wards adopted in a well-known French sanatorium, which gave a curious honeycombed effect to the south front of the patients' block. Those balcony designs were most frequent in sanatoria for T.B. patients, but unfortunately the modern treatment of lung troubles did not favour exposure to the direct rays of the sun, though there were special cases, such as orthopædic, surgical T.B.s, etc., etc., which were best treated in the open air and sunshine.

The flat roof was another characteristic of the new phase of hospital construction, and, combined with wide eaves to protect the large windows below, was certainly in keeping with the type of construction where horizontal lines predominated. From a practical point of view the fireproof floor and the flat concrete roof had great advantages, especially in a hospital building. There was no waste space, no concealed areas where dirt and stagnant air could collect, and no timber which could rot or decay out of sight.—Metal windows were another result of the desire for large glass areas, and several manufacturers had designed a sliding casement, which was particularly suitable for the horizontal type of window, opening back to its full extent in fine weather. But there were two points which should never be lost sight of in designing a window—(1) accessibility for cleaning, and (2) prevention of rust—and unless a window met those requirements it could not be said to be suitable for a hospital.

The ventilation and heating of the ward had to be considered with the arrangement of the windows to ensure success. The low-pressure hot-water radiator placed under the window in the "standard" type ward had proved so far the most successful and convenient method of heating a ward. But there was no reason why other methods should not be tried, and the "panel" system of heating where the pipes were concealed in the ceiling and radiated from above had much to recommend it, though many committees were still afraid to use it on account of cost and dislike of concealed piping. There were other forms of radiators now on the market which endeavoured to combine the advantages of the panel system with the radiator, but they were still largely in the experimental stage. Electric heating would no doubt come into use some day, and meanwhile had already proved its use for giving auxiliary heat in operating theatres, private patients' rooms, visitors' rooms, etc. In the design of the ward the heating must be studied as one of the most important factors, and it was well to remember that, as far as possible, the heating should be located away from the patient's head. The latter point was another argument in favour of the "parallel bed" system. With regard to ventilation, "natural" ventilation was the only satisfactory system in this country, except in the special case of operating theatres, etc., and the problem was to design a window which would admit a small amount of air without causing draught in cold weather, and could be opened to full extent in warm weather.

The Hospital of the Future.

The hospital of the future would be compactly planned with a minimum of corridor. The window spaces would be greater than in the past, but the wards would be lower and narrower as that would be possible without detriment to the patients. The wards would contain a smaller number of beds. The day of the large ward was past, and wards of four, six and eight beds were likely to be the rule. Provision would also be made for a certain number of single bed wards for the use of patients who could afford to pay higher fees, as patients would pay according to their ability. The planning must allow of great flexibility, so that the number of patients could be varied at will, according to need, into sections of medical, surgical, male, female, heart cases, pneumonia cases, etc., etc., and the small ward was obviously more suitable from that point of view. The question of future extension must also be kept in view and some system of planning by which standard units were used as a principle would seem to be indicated. The need for economy was greater than ever, but the standard of work must never be lowered to a point at which upkeep would be increased, as that would be a cause of great and lasting expense. For that reason temporary buildings were ruled out.

Finally, the design of the building should be attractive architecturally, so that the building was inviting externally and internally to the patients and staff, and the whole building should be a source of pride to the district, constructed of pleasant materials and presenting a cheerful face to the world.

The Horniman Museum, Forest Hill.

The late Mr. Emslie J. Horniman has bequeathed £10,000 to the London County Council for the extension of the Horniman Museum at Forest Hill. The museum and the adjoining grounds, Horniman Gardens, were given to the L.C.C. in 1901 by Mr. Emslie Horniman's father, Mr. Frederick Horniman.

* Republished in *The Builder* for September 16.

ADVISORY COUNCIL OF THE BUILDING INDUSTRY

THE annual report of the Advisory Council of the Building Industry for the administrative year 1931-32, just issued, makes it clear that considerable progress in the examination of the Acts of Parliament, by-laws, and regulations governing building operations has been achieved during the past year. The report indicates directions in which the building industry can be freed of much of the archaic statutory control it is now subject to. The degree of statutory control now exercised over the industry may, or may not, have been necessary fifty or a hundred years ago, but it is felt to be quite out of place under modern conditions. We take the following extracts from the report :—

Building Acts Panel.

This Panel, having now more or less completed its first task, namely, the Council's commentary on the London Building Act, 1930, will now bend its energies to the consideration of the wider field of building legislation concerning those parts of the country outside the administrative area of the L.C.C.

Electrical Equipment Panel.

The object of this Panel is to secure co-ordinated regulations for the proper control and administration of this branch of building equipment, at the same time ensuring that such regulations are sufficiently fluid not to act as a check on the progress of applied electrical science. The Panel has still a very wide field of investigation to pursue and having regard to the extensive interests involved and which have to be so carefully regarded from the point of view of electrical development generally, it is not expected that anything approaching final agreement will be reached, or complete recommendations made, for some little time to come, but an interim report to the executive committee indicates the line of development its final recommendations are likely to follow, and it is clear that the liaison between the Institution of Electrical Engineers and the technique of electrical installation which that Institution now controls under its Code of Regulations will be of a much more practical nature than it has been in the past.

Lifts and Escalators Installation Panel.

A sub-committee has put forward the following points as interim suggestions :—

OPEN ESCALATORS.—(1) Escalators without complete enclosures should be permitted generally provided the normal surround, *i.e.*, balustrading and spandril, are composed of fire-resisting materials throughout, and that automatic fire-extinguishing apparatus of suitable type is installed, protecting all parts of the installation, including the mechanism and track.

That all escalators installed as above should be accepted as an alternative means of escape.

NOTE.—By the term " suitable " in the case of fire-extinguishing apparatus, the sub-committee considered that this should be held to mean apparatus using foam or acid as the extinguishing medium and that the apparatus should be independent of any general sprinkler system for the remainder of the building.

(2) That all escalators that are available for the general use of the public should be equipped with emergency " STOP " buttons at intervals along the travel, such buttons to be fitted in glazed cases and available for use by the passengers in case of accident.

NOTE.—It is assumed that the operation of the fire-extinguishing apparatus referred to above would automatically stop the escalator.

(3) That all lifts that are intended for passenger and/or goods service and which are fitted in wells or structures external to but adjoining any building and giving access thereto, should be fitted with fire-resisting doors throughout.

NOTE.—The above recommendation is intended to apply to lifts fitted in independent wells but which are fitted with openings serving or giving access to the main floors of any building. In such cases, and where doors of easily combustible material or open gates are fitted, an outbreak of fire in the lift well would spread easily to the adjoining building.

(4) That no secondary fire or smoke resisting protection should be required in cases where the lift enclosure, structure, car and general equipment is fire-resisting and where the machinery is located above the well.

That the use of roller shutters or secondary doors as additional protection especially those brought into operation automatically by the use of fusible links or similar automatic devices, is in itself dangerous, as likely to cause damage to life and limb and to create panic.

NOTE.—The members of the sub-committee are unanimous in their opinion that the entrance to lifts, especially in stores and similar places, should be as open and conspicuous as possible and that lobbies should not be permitted as tending to decrease the usefulness of the lift installation.

The current restrictions, which are imposed with the idea of preventing fire or smoke penetrating from lift well to floors, or from floor to floor via the lift well, are felt to have been wrongly conceived. From the point of view of preventing fire spreading from lift well, *i.e.*, in case of an outbreak in the car or its contents, the suggestion contained in (4) above would cover such cases.

If the condition is imposed with a view to the prevention of panic due to smoke passing from one floor to another through the ordinary lift doors, it is difficult to see how such an end can be attained by the use of fusible link devices. It is considered that condition should be discussed with the London County Council at the earliest possible date as unofficial information indicates that it is proposed to make a regulation on these lines in the near future.

Sanitation, Plumbing and Water Installation.

This Panel has examined and reported upon the Drainage and Sanitary By-laws of the London County Council, and is now in process of examining Series No. 4 (Urban Authorities) of the Model By-laws issued by the Ministry of Health. The Panel has also been engaged on an investigation into what is commonly known as the " one-pipe " system of sanitation.

On the subject of By-laws and Regulations Governing Sanitation in London, the Panel recommends :—

(i) That in the interests of simplicity, all Statutes unrepealed by the London Building Act, 1930, in so far as they relate to drainage and sanitary matters, and more particularly the Metropolis Management Act, 1885, the Metropolis Management (Amendment) Acts, 1862 and 1890, the London County Council (General Powers) Act, 1891, relating thereto be repealed and that provision be made in a new London Building Act for dealing with such matters.

(ii) That the existing By-laws, that is :—

(*a*) Those By-laws headed " Drainage By-laws " made by the London County Council on the 30th July, 1929, under Section 202 of the Metropolis Management Act, 1855, and the Metropolis Management Acts Amendments (By-laws) Acts, 1899, and confirmed by the London County Council on the 22nd October, 1929, and forming Series No. 2713, and

(*b*) Those By-laws made by the London County Council on the 20th May, 1930, under Section 30 (1) of the Public Health (London) Act, 1931, and Section 24 of the London County Council (General Powers) Act, 1928, with respect to water closets, urinals, earth closets, privies, and cesspools and the proper accessories thereof in connection with buildings and forming Series No. 2822,

subject to the amendments hereinafter set out [in the Report] be incorporated in one set of by-laws to be made under the authority of the new Building Act as recommended in (i) above.

On the subject of the " One-Pipe System of Sanitation" the conclusions of the Panel are as follows :—

(i) That the " one-pipe " system of sanitation has hygienic advantages over the present usual practice (*e.g.*, a smaller area of surface is open to fouling and permits of a higher degree of ventilation).

(ii) That in general application and in suitable buildings it is the more economical system in that both its initial and maintenance costs are less.

(iii) That its installation calls for careful planning and a higher and more consistent degree of workmanship.

(iv) That by involving the use of fewer pipes it lessens disfigurement of architectural treatment.

(v) The general view of the Panel is that the system is more suitable for large buildings than for small domestic buildings.

Fire Prevention Panel.

This Panel has produced a Report on Fire Prevention and on the means of escape from fire in buildings, which in its detail and scope, it is believed, has never been equalled in the range of its application. By the application of the formulae and terms of the Report it is now possible for an architect to plan the whole of the means of fire prevention and escape facilities in any building in accordance with the best practice on this matter prevailing in most countries of the world.

The Panel finds that the absence of defined regulations in London governing means of escape in case of fire tends not only to increase the difficulties of architects in the matter of design, but is a prolific source of delay in the preparation of plans. It is almost impossible at present for a building to be designed with respect to means of escape in case of fire to ensure certainty of such means being accepted by the London County Council. This position entails upon the architects the taking of their plans in draft to the officials concerned to get their prior concurrence before the plans are formally submitted for approval or sanction. The necessity for such a method of procedure is thought to be both wrong and entirely unnecessary. The view of the Panel on this aspect is that the whole of the administration of the regulations governing this particular subject calls for simplification and that regulations should be drafted in such a form that they can be applied as broad principles in design rather than as hard and fast requirements.

The Panel have, therefore, considered the London County Council statement of general requirements to see if it would not be possible to get out a formula based as far as possible on their notes (*a*) to (*f*) inclusive, which will give some indication as to what would be considered suitable exits under varying conditions. [The formula suggested is fully set out in the Report.]

The Panel has made inquiries with respect to the present limitation of height in buildings, but is unable to discover any adequate reasons for the present limitation of height from a fire point of view. Outside London there are very few towns which impose any limitation on height of buildings.

The Panel has made inquiries regarding the limitation of cubical extent in buildings, but is unable to discover that there is any such limitation in England outside London, nor can it discover that any such limitation exists in any foreign country. Inquiries made in the United States of America, where there are no such restrictions, elicited the fact also that there had been no fire of any consequence in up-to-date American buildings. Some regulations dealing with means of escape in case of fire are necessary and the Panel feel that this question of the safety of life is of the utmost importance, but the regulations should be so framed that they insure adequate means of escape rather than a limitation of the cube of the building.

The task before the building industry to clear itself of the barnacles gathered in its drift of the last 100 years requires, and justifies, all the effort that can be made on its behalf, and in this respect the Council will always be most happy to render any assistance.

THE TOWN PLANNING INSTITUTE

PRESIDENTIAL ADDRESS.

Mr. F. Longstreth Thompson, the newly elected President of the Town Planning Institute, took the chair at the opening meeting of the session at Caxton Hall, Westminster, on Friday, and delivered his presidential address. The President said that a year ago the presidential address was devoted to an examination of the long-awaited Town and Country Planning Bill which, after reaching the final stages, had, unfortunately, failed to survive the political exigencies of the financial crisis, and it concluded with an eloquent plea for the reintroduction of the Bill by the new National Government, as a measure of national economy, at the earliest possible moment. The Bill was duly introduced in November last, and received the Royal Assent in July of this year. The new Act did not reach the Statute Book in quite the form that its promoters and supporters desired and were reasonably entitled to expect. Nevertheless, the main object of the Bill, which was the extension of planning powers both to land already built on and to rural areas, had been secured, and there was no longer any limitation as to the kind of land that could be planned, provided that the expediency of planning it could be demonstrated. The reinstatement of the provision requiring the approval of the Minister to the resolution deciding to plan, contained in the Act of 1909 and deleted in that of 1919, would certainly cause additional trouble and expense both to local authorities and to landowners. Moreover, the imposition of conditions which had to be satisfied before the Minister could approve a resolution to plan undoubtedly restricted the freedom of planning, particularly in built areas. On the other hand, the exclusion from compensation of provisions prohibiting or restricting building operations on land where they would involve danger or injury to health or excessive expenditure of public money in the provision of roads, sewers, water supply or other public services, or where they would be likely seriously to injure the amenity of the locality, had at last made practicable the effective planning of rural areas.

Merits of the Act.

Moreover, the Act contained much that was of value both in removing anomalies and ambiguities in the existing law and in introducing for the first time to the Statute Book ideas which had long been accepted by practical town planners. He might mention the replacement of the vague phrase "character of buildings" by provisions which referred to size, design, external appearance and use of buildings; and also the final disappearance of a mysterious provision which prohibited authorities amongst whose duties was the preservation of ancient monuments from acquiring such monuments for that very purpose. As example of the second, it was sufficient to point to the provisions enabling regional plans to fulfil their proper function as outline schemes to be supplemented later by detailed local planning schemes, and also the frank recognition in the new supplementary order procedure that even in the case of local schemes, planning the final details could not be carried out at once. Again, the adoption of a procedure for enabling owners to register themselves for the purpose of being kept in touch with planning developments in place of the costly system of "referencing" was a valuable move in the direction of economy and simplicity.

One of the least acceptable changes was that the power to recover betterment, though retained in principle and even increased to the extent that 75 per cent., instead of 50 per cent., was the proportion now theoretically recoverable, was so weakened by provisos as to make it doubtful whether anything of practical value remained.

It might fairly be claimed that substantial progress had been made towards some of their objectives. Road traffic problems, for example, had been studied in great detail, and not only had the system of main roads been improved and augmented to meet the urgent needs of the present day, but the traffic requirements of the future had been envisaged and provision had been made for them in advance by the prescription of widenings and the reservation of new routes. As a result, this country now possessed probably the most complete and efficient road system in the world, and it had the further assurance that provision had been made for the continued maintenance of this efficiency with the minimum of expense.

The consequential benefits to the economic life of the nation were not so generally appreciated. The three main sources of benefit were :—(*a*) The reduction in the cost of transport due to the provision of shorter routes and to the elimination of some of the delay caused by traffic congestion; (*b*) the saving of expense on new roads and widenings due to the reservation of the necessary land in advance and the avoidance of the heavy cost of disturbing property and acquiring buildings; and (*c*) the saving of expense in estate development due to the concentration of heavy general traffic on a few wide main roads, and the consequent relief afforded to purely residential roads.

The reservation in town planning schemes of the land required for the future widening of existing streets and for new arterial roads had, by eliminating the expense of acquiring buildings, reduced enormously the cost of construction. The lay-out and design of roads on a functional basis in town planning schemes had been the means of saving considerable sums in estate development. For, instead of having to comply with the rigid uniformity of the old by-laws, the developer, in return for giving up a little more land for the widening of existing main roads or the construction of new main roads, had been allowed to reduce the width allocated to minor roads and to economise materially in their construction.

These economies were no mean achievement, and they seemed to him to be an effective answer to those who perpetually deplored the expenditure of public money upon road improvements. It was also at least a partial answer to those who considered that town planning had failed to produce any tangible results. In the department of road planning, at all events, town planning had fulfilled one of its chief functions with conspicuous success. It had also had beneficial effects in securing healthier and pleasanter housing conditions, in preserving large areas of open space for public enjoyment and in doing something towards the protection of amenities. But in the constructive planning of towns the results had been less satisfactory.

Transport and Industry.

Transport and industry were clearly the dominating factors in the national economic life, and since the essential purpose of planning was to assist the community to live its economic life under the best conditions, it followed that transport and industry should be basic factors in planning policy. If road transport had been a governing consideration in planning schemes, it must regretfully be admitted that adequate consideration had not yet been given to industry and to other forms of transport, and that for this reason their planning activities had largely failed to secure the interest and co-operation of the industrial and transport organisations, without which planning could never fulfil its proper function.

The main problems were the best location of industrial areas from the industrial point of view, their proper equipment with transport facilities and other public services, and their real incorporation into the structure of modern urban communities. These problems had occupied the minds both of industrialists and planners for many years. Attempts had been made by private enterprise to provide ideal conditions for factories on estates chosen, laid out and equipped solely for industry, such as those at Trafford Park, Slough, and the Birmingham factory centre at King's Norton and, within their own limits, these attempts had been successful. But they had been confined to the satisfaction of the technical needs of industry and had paid no attention to such questions as the housing of the employees. This, since the War, has been left to the local authorities, and, on the whole, they had made very creditable endeavours to provide ideal housing conditions. But apart from Letchworth and Welwyn and such places as Bournville and Port Sunlight, which represented the enterprise of single firms, no practical attempt had been made on a large scale to provide for ideal conditions for both works and workers in a single co-ordinated scheme.

This was not to be taken to imply that planners had failed to appreciate the importance of industry. On the contrary, many of the regional plans were based on a recognition of the supreme importance of satisfying industrial needs. In the case of the East Kent region the great industrial interests were consulted, and, with their active co-operation, a preliminary scheme was prepared and a well-thought-out and apparently workable scheme was propounded, but in the final scheme which emerged, the clear outlines of this bold and far-sighted policy became so blurred by later inspection through the short-focus spectacles of practical expediency as to be almost unrecognisable.

Improving the Technique of Planning.

There were two chief ways in which the technique of planning could be improved : First, by much more intensive study than had hitherto been undertaken of the basic needs of industry, using the word in its widest connotation; and secondly, by the evolution of a definite planning policy designed to satisfy these needs. The town planner could not hope unaided, to envisage all the requirements of industry, nor could the industrialist, preoccupied with the immediate problems of his own business, be expected to appreciate all the many factors involved in planning. Here, therefore, was an obvious and urgent need for collaboration. For, if industry was the essential basis of planning, planning was no less essential to industry, and both depended upon the proper organisation of transport. He suggested, therefore, that the first step towards the "rationalisation" of planning should be to set up a Joint Committee representative of these three groups. Such a Committee could and should form the nucleus of a larger body representative of all the interests concerned and for whom an appropriate designation would be the "National Planning Board." It would be the duty of the Board to collect and examine all available data, to investigate exhaustively the problems that had to be solved, and, finally, to formulate a national planning policy that could be adapted to local needs.

Dr. I. Gibbon (Ministry of Health), in proposing a vote of thanks to the President, said the address gave them three propositions. One was that the kernel of planning was business, using the word in its broadest sense. The second was that they had not yet persuaded the business man that planning was essential for his prosperity; and the third was that they were yet far from solving the planning problems concerned with business. All of them knew that the planning movement in this country started with housing and for improving amenity, and had it not been for the stalwart efforts of the men who started they would not have had planning for many a day after 1909. He was looking forward to the men who would play the part which the men, who were instigated mainly by housing conditions, played in 1909 and earlier. It was really urgent that professional planners should do much more in solving the problems of better business planning. Not the least handicap with which industry in this country had

to compete was that of its former prosperity, which had left a legacy of antiquated establishments. For economic production proper business planning was essential, but it meant more than simply roads and a right location. The big businesses might be able to look after themselves, but they were apt to overlook the fact that the medium-sized and small businesses were growing not only here, but in the United States. For these some system under which they could get co-operative effort in location and facilities was essential if they were to avoid waste in manufacture and to the community. Hitherto they had been signally unsuccessful in getting the live interest of the business men as a whole, and a good deal more propaganda in that matter was required. Their President talked about a National Planning Board, but in that he saw the serpent's head. They all damned Civil Servants in the main, but always ran to them for help in detail. He advised them not to plead for Government action, but to do the thing themselves. As professional planners it was their business to investigate these problems and find a solution.

Mr. S. G. Turner, K.C., in seconding the motion, said they had had twenty-three years of town planning and it was still spoken of as being in an experimental stage. But that did not connote failure, because those who commenced the work were under no illusions as to the time which would elapse before any great measure of success could be achieved.

The resolution was carried.

The President, in reply, said his suggestion for a National Planning Board had nothing to do with Civil Servants. His idea was to get into touch with representatives of business and transport interests and with landowners and form a Board, which would consider and try to solve the problems before them. In the consideration of industry, agriculture really never got its proper share of attention. Agriculture was our largest industry, with a turnover of £250,000,000 per annum; which was £100,000,000 more than the turnovers from agriculture of Canada and Australia. Our countryside could carry double its population without being so highly populated as rural Germany or France. What planning could do for agriculture he was not prepared to say, but it was one of the subjects a National Planning Board might well consider.

ROYAL SANITARY INSTITUTE

MR. W. N. ILLINGWORTH, M.A., headmaster of Durham Central School for Boys, at a conference of the Royal Sanitary Institute held in Durham, suggested that teachers should collaborate with architects to build the most suitable schools. The speaker outlined a scheme whereby a school would resemble a market place, with classrooms on all sides representing shops, post office, bank, telephone room, metalwork shop, pottery shop, and the like. By this means, he said, children would receive training in the various job which they saw grown-ups doing.

Mr. Percy Morris, architect to the city of Wakefield, read a paper in which he stated that school buildings should be well arranged, of graceful design and economic in form, with imaginative positioning and shape. They should transcend the dull and uninteresting by providing a delightful, congenial, and inspiring environment where the forming and strengthening of character in the hour of its growth might be easier of accomplishment.

Mr. Addison Smith, F.S.I., of Newcastle, said that in the planning of schools allowance should be made for external additions as well as internal alterations. He pleaded that they should build schools which would stand 10 to 15 years instead of the substantial buildings which were erected at great cost to the taxpayer and soon became out of date.

R.I.B.A.

Notes from Council Minutes.

FOLLOWING are notes from the minutes of the Council meeting of October 24 :—

The Building Industries National Council.—It was resolved to approve and support the scheme for the establishment of the Building Industries National Council and to take such part in it as is appropriate.

Examination for District Surveyors.—The Board of Architectural Education reported that five candidates had sat for the R.I.B.A. Statutory Examination for District Surveyors, October, 1932, and on the recommendation of the Board the following two candidates were passed :—Frederick C. Button, Eric D. McDowall.

Examination for Building Surveyors.—The Board reported that two candidates had sat for the R.I.B.A. Examination for Building Surveyors, October, 1932, and on their recommendation the following candidate was passed :—Albert Cannell.

The R.I.B.A. Architecture Medals.—The Council formally approved the award of the jury for the award of the medal in the area of the Berks, Bucks and Oxon Architectural Association to the Municipal Offices, Queen Victoria-road, High Wycombe, Bucks, designed by Mr. C. Cowles-Voysey (F.), and Mr. R. G. Brocklehurst (L.).

Gift of Bust of F. P. Cockerell.—The Council accepted with grateful thanks the gift by Mrs. R. M. F. Huddart, wife of Mr. R. M. F. Huddart (A.), of a bust of the late F. P. Cockerell by Onslow Ford.

British Standards.—Mr. R. Minton Taylor (F.) was appointed to represent the R.I.B.A. on the British Standards Institution Technical Committee on Lead Pipes and Fittings.

Architects' Registration Council.—Mr. E. Stanley Hall (F.) was appointed to represent the R.I.B.A. on a small Computation Committee set up by the Architects' Registration Council.

Art Standing Committee.—Mr. H. V. Lanchester (F.) was appointed to serve on the Art Standing Committee in place of Mr. Robert Atkinson (F.), who regretted his inability to accept membership.

Other Committees.—Mr. Thomas Adams (F.) was appointed as an additional member of the Town Planning and Housing Committee and the Slum Clearance Committee.

Aerodromes Committee.—The Council formally approved the action of the Aerodromes Committee in co-opting the following members :—Major Roseveare, Borough Engineer of Eastbourne (representing the Institution of Municipal and County Engineers, Mr. F. Handley Page (representing the Institute of Transport), Mr. W. R. Davidge (representing the Town Planning Institute), and General F. Festing.

Membership.—The following Members were elected :—As Hon. Fellow, 1; as Fellows, 3; as Associates, 5; as Licentiates, 22. Applications for Membership at December 5 were as follows :—As Hon. Corresponding Members, 2 applications; as Fellows, 12 applications; as Associates, 88 applications.

Resignations.—Six resignations were accepted with regret :—Stanford Morton Brooks (F.), Hubert Ernest Gilford (A.), Lionel Ernest Skipwith (A.), John George Castle (L.), George Thomas Wilson (L.), George Sylvan de Wilde (L.).

Election of Students.—The following Probationers were elected as Students of the R.I.B.A. :—

Adie, F. H. (Univ. of Cambridge).
Ambrose, E. S. (Univ. of London).
Bailey, W. (Leeds Coll. of Art).
Berman, M. D. (Cape Town).
Bowness, R. H. (Leeds Coll. of Art).
Boxall, G. C. (A.A.).
Bradley-Barker, R. B. (Liverpool Sch.).
Brandon-Jones, N. Univ. of London).
Burrough, T. H. B. (R.W.A. Schl. of Architecture, Bristol).
Carter, R. (A.A.).
Cattermoul, H. S. (Glasgow Sch.).
Cooper, Sheila M. (A.A.).
Davison, H. S. (Leeds Coll. of Art).
Deare, D. H. (A.A.).
Duncan, J. B., jun. (Univ. of Cambridge).
Gogarty, D. St. J. (Univ. of Cambridge).
Good, A. B. V. (A.A.).
Goring, J. A. (R.W.A. Sch.).
Gray, Charlotte (A.A.).
Green, D. J. (A.A.).
Heath, W. F. G. (Univ. of London).
Hilton, J. R. (Univ. of London).
Hollings, Phyllis G. (A.A.).
Hughes, A. S. W. (A.A.).
James, F. N. (Northern Poly.).
James, W. J. L. (R.W.A. Sch.).
Jones, C. H. (Univ. of Cambridge).
Jones, W. G. (Liverpool Sch.).
Kirby, A. D. (R.W.A. Sch.).
Lewis, E. R. C. (A.A.).
Loveday, Elizabeth D. M. (Univ. of London).
Macartney, R. H. (A.A.).
McGowan, W. M. (Univ. of Manchester).
Marathe, G. W. (Sir J. J. Sch. of Art. Bombay).
Medlycott, T. A. H. (Univ. of London).
Mercer, Frances J. H. (Robert Gordon's Coll., Aberdeen).
Mould, J. S. (Special exemption).
O'Farrell, E. C. (Univ. of London).
Owen, E. H. (Welsh Sch. of Architecture).
Page, L. (Northern Poly.).
Patell, K. A. (Sir J. J. School of Art, Bombay).
Pettiward, Cynthia (A.A.).
Powers, F. W. (Inter. Exam.).
Prasad, V. N. (Sir J. J. School of Art, Bombay).
Robson, H. S. (Liverpool Sch.).
Seddon, B. (Liverpool Sch.).
Shuttlewood, W. K. (Leicester Coll. of Arts and Crafts).
Simpson, B. A. (Inter. Exam.).
Simpson, S. (Leeds Coll. of Art).
Smethurst, A. (Univ. of Manchester).
Smith, K. R. (A.A.).
Somerville, E. R. (Auckland Univ. Coll.).
Somjee, H. J. (Sir J. J. School of Art, Bombay).
Tayler, H. (A.A.).
Taylor, H. (Univ. of Manchester).
Tebbitt, M. C. (A.A.).
Thariani, A. M. (Sir J. J. School of Art, Bombay).
Thornton, A. W. (Glasgow Sch.).
Turner, S. (Northern Poly.).
Twemlow, W. J. (Liverpool Sch.).
Warren, E. P. (A.A.).
Watson, A. (Glasgow Sch.).
Williams, C. W. (Welsh Sch.).
Williams, M. (R.W.A. Sch.).
Woodhouse, W. M. (Univ. of Cambridge).

Medals for Students of Recognised Schools of Architecture.

The Council of the R.I.B.A., on the recommendation of the Board of Architectural Education, have made the following awards :

R.I.B.A. Silver Medal and £5 in Books.—The R.I.B.A. Silver Medal and £5 in books for Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination have been awarded to Mr. E. Mayorcas, of the Architectural Association School of Architecture. A Certificate of Honourable Mention was awarded to Mr. A. G. S. Fidler, of the Liverpool School of Architecture, University of Liverpool.

R.I.B.A. Bronze Medal and £5 in Books.—The R.I.B.A. Bronze Medal and £5 in books for Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination have been awarded to Mr. P. K. Pope, of the R.W.A. School of Architecture, Bristol. A Certificate of Honourable Mention was awarded to Mr. M. G. Gilling, of the Liverpool School of Architecture, University of Liverpool.

CONFERENCE WITH TEACHERS AT ART SCHOOLS AND TECHNICAL COLLEGES.

A conference attended by teachers in schools of art and technical colleges was held at the R.I.B.A. on Saturday, November 5. An address on "Part-time Architectural Education" was given by Mr. W. S. Purchon, M.A., A.R.I.B.A., vice-chairman of the Board of Architectural Education and head of the Welsh School of Architecture, the Technical College, Cardiff.

After expressing his belief in the superiority of the full-time scheme of architectural education, Mr. Purchon pointed out that whatever our hopes might be for the future, it was clear that a large number of organisations were doing extremely valuable work in providing part-time courses, and he advised these organisations to put forward schemes for their possible future development.

The lecturer referred to the excellent work of the R.I.B.A., spread over a large number of years, pointing out that the R.I.B.A. examinations for the Associateship, which had now been operative for over fifty years, were sound examinations, reaching a high standard. On the other hand, the exemptions from its own examinations which the R.I.B.A. had granted to approved schools had had far-reaching architectural effects. To indicate the nature of this educational work, it was shown that throughout the Empire there were now 17 schools recognised

for exemption from the R.I.B.A. intermediate and final (six in England, three in Scotland, one in Wales, and seven in the Dominions); 13 schools recognised for R.I.B.A. intermediate exemption only, five schools with permission to submit school studies in lieu of testimonies of study for the intermediate; while the R.I.B.A. was also in touch with 84 further institutions which had facilities for the instruction of intending architects.

After dealing with the varying types of institutions in which these schools of architecture have been provided in this country, the lecturer dealt with the question of the size of those schools and the importance of maintaining a high standard for admission. He then considered briefly various courses intermediate between the work of the secondary school and that of the professional school, and proceeded to discuss, in some detail, the various subjects of an architectural course.

His address terminated with a tribute to the work of such men as Lethaby, Paul Waterhouse, Ernest Newton and Sir Reginald Blomfield, and a plea for giving a proper place in our architectural scheme to education in architecture and the allied arts and crafts.

A discussion then took place, in which the following took part: Messrs. R. A. Dawson (Manchester School of Art), K. E. Black (Brighton School of Art), S. Reyner Day (Acton Technical College), F. E. Drury (L.C.C. School of Building, Brixton), C. S. Picton (L.C.C. School of Building, Brixton), Martin S. Briggs (H.M. Inspector), Norman Keep (L.C.C. School of Building, Brixton), J. Herbert Jones (President of the South Wales Institute of Architects), S. N. Bertram (Oxford School of Arts and Crafts), W. M. Keesey (H.M. Inspector).

THE CHARTERED SURVEYORS' INSTITUTION

PRESIDENTIAL ADDRESS.

The opening address to this Institution was delivered by Mr. C. Gerald Eve (President) on Monday at Great George-street, S.W.1.

In the present time of unparalleled depression at home and abroad, and of heavy national taxation, the call for economy, said the speaker, had tended to divert the surveyors' profession from its creative work of reconstruction, improvement, and progress, and to confine it to the less fruitful, though necessary, task of helping in the endeavour to meet and overcome the financial stringency. The halt which was called a year ago in the erection of public works and buildings had its immediate repercussion on private enterprise in that field, and the business of the building and quantity surveyor had since been largely confined to works of maintenance and repair. Many of the difficulties which the surveyor had to face had been without precedent and of such a nature that he had had no previous experience at his command to guide him. But, as His Royal Highness the Duke of York was good enough to tell us, the surveyor was the handyman of the professions; and he (the speaker) was confident that the more desperate the challenge the greater would be the response and resourcefulness by which it would be met.

Town and Country Planning.

Turning to current matters, the Town and Country Planning Act, 1932, would come into operation on April 1, 1933. Surveyors wished the Act smooth working, an end which could best be secured if the planning authorities realised that under present circumstances economy should be their first consideration. Neither the local public purse nor the property-owner could afford to spend much money on improvements, however desirable. It was to be hoped that for the time being town and country planning would be confined to preventing hideous erections, the spoliation of rural beauty, and other mistakes which would mar the future, and to the making of regulations that would provide the framework for future improvements when means permitted. There was, however, a possible danger lest the town planning authorities, actuated by the thought that the collection of the betterment charges from landowners would largely pay for the intended improvement without recourse to public funds, might push forward such schemes with undue haste. Nowadays property-owners did not think it unfair that they should pay for betterment; but many a property-owner today could not afford the improvement, or if he could afford it, he might anxiously prefer a domestic improvement, such as a bathroom, to the amenity of a new public park near his house. With co-operation between owners and the authorities at the earliest stage of town planning, and continued throughout the later stages, much could be done without expense in the pressing matter of preserving the aspect of our countryside But hostility and opposition on the part of owners must inevitably arise unless economy was put in the forefront. The new Town Planning Act was, almost of necessity, extremely complicated and required prolonged study, the compensation clauses in particular. Until, however, the Ministry of Health had, at the end of the calendar year, issued their regulations, no complete study was possible or profitable.

Landlord and Tenant and Rent Restriction.

The Landlord and Tenant Act, 1927, providing for renewals of leases or compensation in the alternative, had now been in operation for a sufficient time to warrant confirmation of the opinions expressed by a former President—the late J. D. Wallis—in 1925, namely, that questions which were mainly those of values had best be determined for the county court judge by surveyors whose ordinary practice enabled them to deal with them with knowledge and authority. The county court judge was a competent and adequate tribunal for the determination of legal issues; what remained outside those issues were questions of fact and value affecting property which should be referred for decision or report to qualified surveyors. Experience already showed that more time was occupied, and more expense occasioned to the parties, when protracted evidence on questions of value had to be brought before a referee who did not possess the experience of a surveyor; and the parties were inclined to comment unfavourably on such procedure. He spoke disinterestedly as regards chartered surveyors, because as a rule a larger number of them were engaged in cases where the referee was not a surveyor. With regard to the county court judges themselves, as usual, nothing but praise had been forthcoming of the manner in which they had exercised their functions under this Act. The Rent Restrictions Acts urgently called for legislation on the lines of the Report of the Departmental Committee, and it would be lamentable if the present Government delayed much longer in introducing an amending Bill; there was no excuse for continuing to control, fourteen years after the end of the War, classes of houses of which the supply had now equalled the demand. Until local authorities devoted such expenditure as was at their command for new houses to the erection of the very small house capable of being let at rents which could be paid by the really poor, the existing shortage of that class of house would remain, because private enterprise would of necessity continue to refrain from making provision to meet that particular shortage for the plain reason that "it did not pay." It was generally agreed that municipalities had been too prone to employ their funds in the provision of the better class of house at rents out of reach of the poorest class.

The injustice of Section 46 of the Housing Act, 1925, formerly Section 9 of the Housing and Town Planning Act, 1919 (which related to compulsory acquisition of property for the improvement or reconstruction of an unhealthy area, and laid down that compensation was to be for the value of the land only), still remained as a blot in the otherwise fair code of compensation obtaining in this country. The speaker recalled that in his Presidential Address of 1925 the late J. D. Wallis had stated that he had found that "business and commercial properties had been included in the insanitary area, and that persons earning their livelihood in their own premises had been deprived of any right to compensation for buildings, plant, trade fixtures, loss of business or removal, although the premises were not in themselves insanitary and were not used mainly as dwelling-houses." It remained a mystery why that acknowledged hardship, falling chiefly as it did on the poorer class of property-owner and on occupying tradesmen in a small way of business, had not received the active attention it deserved at the hands of our legislators.

The Secretaryship.

After dealing at some length with the question of local taxation, the President concluded with a few remarks regarding the secretaryship. In all the 64 years the Institution had had but two secretaries. Fortunate had the Institution been, not only in having but two changes in office, but in the characters and attainments of those two persons. In 1869, when Julian Rogers became secretary, the total membership was 202; when he retired 36 years later in 1905, it was 3,719; while in this present year of Mr. Goddard's retirement it had risen to 7,794. The honours might be said to be almost equally divided. The new secretary, Major Killick, had now taken over the reins of office, while Mr. Goddard remained until the end of the calendar year in an advisory capacity. Major Killick might be assured of the welcome and good will of the members, and of their assistance and best wishes in the task that lay before them.

OBITUARY

William Kaye-Parry, F.R.I.B.A., P.-P.R.I.A.I.

We have to record the death in London of Mr. William Kaye-Parry, M.A., F.R.I.B.A., P.-P.R.I.A.I., M.Inst C.E., formerly of Dublin. Mr. Kaye-Parry had had a long and distinguished career in the service of architecture in Ireland. Born in 1853, he received his architectural training from John McCurdy, P.-P.R.I.A.I., and was in 1889 appointed surveyor to the Kingstown Estate, a post he held until 1903. His first competition was won in 1897, with a design for the new Alexandra School in Dublin. This he followed with winning designs in competitions for additions to the Masonic Orphan Girls' School, Balls Bridge; the Open Sea Baths, Bangor, Co. Down (1906); and additions to the Royal Hospital for Incurables (1913). In 1899 he took into partnership Mr. Geo. W. Ross, who was associated in all works executed since that time. Mr. Kaye-Parry became a Fellow, R.I.B.A., in 1899, and subsequently achieved the distinction of occupying the presidential chair of the Royal Institute of the Architects of Ireland. He had been chairman of the Selection Committee, Appointments and Training Branch of the Ministry of Labour. He was an author also, publishing books on "Office Management" and "Sanitary Protection," as well as contributing to Rivington's "Notes on Building Construction," 1915. His buildings, in addition to those previously mentioned, include: the Dublin International Exhibition, 1907; Castle Freke, Co. Cork; Kingstown Pavilion; sanatoria at Peamount and Armagh; Convalescent Home at Newtownforbes; various Memorial Halls; additions to the Freemasons' Hall, Dublin; and various business and commercial work in Dublin and district. He was keenly interested in sanitary science in relation to building, and was both Fellow and Examiner of the Royal Sanitary Institute.

A VISIT TO BROADCASTING HOUSE

THE R.I.B.A. were fortunate in being able to arrange for a personally conducted party over Broadcasting House on Monday, October 24. The party was divided into four sections, conducted by the architect, Lieut.-Col. Val Myer, and his partners, and Mr. M. T. Tudsbery, the engineer.

The reception-hall, semi-circular in plan, is lined with Hopton Wood marble, the floor being of mosaic, and opposite the entrance is a fine piece of sculpture symbolical of broadcasting. The planning of the difficult site is remarkable, the grouping of the staff rooms being around a centre tower constructed in blue brick enclosing the twenty-two studios from which broadcasting takes place. The effect of passing from one to the other was very apparent, and the voice of the speaker in the studio was noticed to be mellower and softer in tone than in normal circumstances.

The party was then conducted to the sub-basement and shown the air-conditioning plants, boiler and refrigerating rooms; and to the fifth and sixth floors, where is the machinery for charging the batteries and adjusting the power of the broadcasting itself. The machinery and boiler rooms were notable for the fact that the plant was decorated in grey and black, with all pipes painted in bright red or blue to indicate their purpose. The large lifts are arranged so that the artists and the staff are kept apart, yet in case of emergency either lifts can be used.

The studios were the chief attraction. One noticed particularly the variation in treatment of decoration and furnishing, and the harmonious colour-schemes were much liked. The lay-out of the studios is very ingenious, each having a listening room and an observation room overlooking two or three studios. The walls are largely finished with a cream, hard paper. The ventilation trunks are designed unobtrusively as cornices, with the outlets as part of the treatment. Some of the small studios are simply treated so that nothing shall distract the attention of the speaker, while others are more of the home-library type. Wood panelling also plays an important part in the decorative scheme. No architraves are employed. The arrises are rounded into the door frame and the rebates are rubber covered. The artificial lighting is subdued and mostly screened. The three lights—red, amber, and green—remind one of the street signals. The clocks, too, are placed where they cannot be overlooked by the speaker or conductor.

The large band-studio is of advanced decorative treatment. The large discs in the ceiling answer two purposes, namely, indirect lighting and ventilation. In this room the floor is of cork, with loose rugs. The studio for religious services is lofty for its size. It has a colour scheme of grey and pale blue, and an interesting columned and arched treatment at one end of the studio. Artificial window-lighting is introduced in several places and gives a charming effect of daylight.

The concert-hall, which will seat over 700 persons on the floor and balcony, is decorated in pale grey. The ceiling is treated in a modern way. The platform has a delightful effect, and the acoustics are good. No doubt the projecting ceiling beams break the sound. The waiting artists' green-rooms and the Press reporters' room have a cheerful atmosphere and are furnished with deep lounge seats.

One must not forget to mention the catering department on the lower ground floor, a large room with buffet counters, where the party was generously supplied with refreshments after a two-hours' tour of inspection. Here Mr. Sydney Tatchell, V.-P.R.I.B.A., proposed a vote of thanks to the B.B.C. Lieut.-Col. Val Myer briefly replied.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

QUESTIONS.

Rights of Light.

SIR,—Arising out of your editorial reply to "T. P." in your last issue, I should be grateful if you will tell me whether I am correctly informed that an ancient light can no longer be established since the passing of recent legislation? ARCHITECT.

Plaster for Stick and Rag Moulding.

SIR,—A customer of ours in East Africa writes us as follows:—"We have lately been doing a little stick and rag plaster moulding, and have been using plaster of Paris for it, but we find this is not very satisfactory. We shall be pleased if you will make inquiries and let us know what plaster is used for this special work in London. The writer did quite a lot of this work in the old days, but as it was thirty years ago he is out of touch with present-day materials."

If any of your readers can tell us what our customer wants to know, we shall be very greatly obliged. CASTLE.

A Question of Profit.

SIR,—We have recently carried out a small contract with extras under a Chartered Architect, A.R.I.B.A., and the following account was rendered:—

	£	s.	d.
To work as per estimates ...	36	10	0
,, labour and materials for extras, as per instructions. (Here follows the description of the work.)			
305½ hrs. at 1s. 3d.	19	1	10½
231 ,, ,, 11¼d.	10	16	7
98½ ,, ,, 9d....	3	13	10½
	33	12	4
Add 4 per cent. W.C.A. and Ins.	1	6	11
	34	19	3
Materials at cost ...	11	18	8
	46	17	11
Add 17½ per cent. profit	8	4	2
	55	2	1
	£91	12	1

No charge for supervision or use of plant is included in the above figures.

We have received the following reply from the architect: "You ask 17½ per cent., a rate of profit that simply is not being earned by builders in these days. Many are content with 7½ per cent., and in offering 10 per cent. I am going as far as I can on the way to meet you."

We should be glad of your readers' opinions, for we consider the architect's offer of 10 per cent. profit on work made up of three parts labour and one part materials is ridiculous, without taking into account that the work was nine miles distant from our yard.

OXONIAN.

Dampness in Wall.

SIR,—A gas fire is installed in a basement room in which the range opening has been adapted for this purpose. The flue is on an exposed flank and runs for a height of about 65 ft., with a plain pot at the top. The flank faces approximately south and is rendered over. Dampness in varying degrees is now showing in the rooms through which the flue passes. The basement room itself is not affected; the dampness in the ground floor room is quite noticeable, while it is most pronounced in the first-floor room, in which the wall is saturated. Above this the dampness diminishes as the flue approaches the top. The assumption is that this damp is caused by condensation from the gas fire, as there are no pipes anywhere near. Could you suggest a remedy? D. C. M.

ANSWERS.

Quantity Surveying.

[ANSWER TO "QUANTITIES STUDENT," NOVEMBER 11.]

SIR,—In the example given by "Quantities Student" in your last issue, the amount dotted on should obviously not be 3. It would be quite correct to dot on 3/4, but I think it would be preferable to rewrite the dimension giving—

3/4/2.0	
4.0	
——	32.0
3/2.0	
4.0	
——	24.0
	56.0

I shall be pleased to elucidate any further points. W. S. CHAPMAN.

Waterproofing Cast-stone Lintols.

[ANSWER TO "TEN YEARS' READER," NOVEMBER 11.]

SIR,—The trouble your correspondent describes is a common one where care has not been taken to interpose a lead dampcourse between the outside and inside faces of a solid lintol, to present an impervious obstruction to damp between any plastered surface and the wet exterior. The damp-proofing of concrete is not reliable and needs more certain cure. A palliative to existing conditions is to wash the face of the lintol and the wall over same with a waterproofing liquid. This cannot be regarded as permanent, however, and will need renewing, certainly every three years, and possibly every other year. Being an inexpensive process, this need not be regarded as out of the question, and is certainly the least disturbing method. WET.

Damp Walls and Ceilings.

[ANSWER TO "C.," NOVEMBER 11.]

SIR,—Your correspondent does not describe the materials of the porch. If of no architectural character worthy of maintaining in an unaltered condition, it is best to correct the constructional fault from outside, rather than attempt to trap the dampness in the wall by sealing the inside face. I should suggest a rendering of waterproofed cement outside, and, after an interval to permit the thorough drying out of the body of the wall inwards, the application of ordinary decorative measures. SEALIT.

Water Softeners.

[ANSWER TO "W. S.," OCTOBER 21.]

SIR,—Your querist will find the information he requires in any ordinary text-book of chemistry. The processes in question have been known for many years. In the transactions of the technical societies there are many papers describing types of water softeners now on the market. For example, Mr. Stromeyer read a paper before the Institution of Mechanical Engineers, in which he described a number of commercial types, and reported upon their performance. "W. S." could doubtless obtain a copy of this from the Secretary, at Storey's Gate, St. James's Park, London. P. Q. X.

Domestic Hot Water.

[ANSWER TO HOUSEHOLDER, NOVEMBER 11.]

SIR,—"Householder" will find an account in *The Builder* some time ago of some very careful experiments by Prof. Barker, giving the relative costs of heating and cooking, when using coal, coke, gas and electricity, under identical conditions. Very briefly, the relative costs placed coal as the cheapest, gas second in order, and electricity as the most costly. But each case must be carefully considered. An occasional use is very different from a continuous demand. Electricity presents one great advantage over the other fuels in that pure heat is obtained without any products of combustion requiring removal P. Q. X.

THE BUILDING TRADE

HINTS ON BUILDING PRACTICE—XXI

By J. R. TAYLOR.

TESTING DRAINS.

"After the drains are laid and jointed, but before the haunching with concrete and the filling up of trenches are done, they are to be tested by filling with water having a head of not less than one nor more than four feet above the crown of the pipe at its lowest end. Manholes to be tested for water-tightness in the same way as for drains, by filling with water to the top of the rendered sides, but not exceeding four feet head."

When a carefully worded clause of this sort appears in the specification the course of the quantity surveyor is clear; he amplifies it by stating that the contractor shall provide all the necessary means for carrying out the test, gives running dimensions of the drains at various diameters to be so tested and numbers the manholes. He goes on to state the nature of the test to be applied to ventilation and soil-pipe shafts, and if a repeat test is to be applied, he says so. But outside London and some of the large towns the course to be followed by the estimator is not necessarily made clear. It may be that the sanitary authorities do not require a test at all, and will be quite satisfied if the contractor gives notice that the drains are ready for inspection. Somebody, who may possibly be a junior clerk or a pupil, comes along, assures himself that an interceptor has been fixed, and that the drains are laid to reasonably straight lines and have some fall, and permission is then given to fill in the trenches. The estimator knows that this will be all that he need provide for to satisfy the local authority, but the question then arises whether the architect will himself require a test to be applied, and very often he will find that unless the contractor raises the question, no test will be applied. Here, as in so many other things, the estimator is, when competition is keen, called upon to do sums with some of the figures missing.

But we are by no means yet at the end of his difficulties. Both specification and bill of quantities will probably lay it down that the pipes are to be of best quality, but may not stipulate that they shall be "tested" pipes. If a water test be definitely insisted upon, then tested pipes should be used, and the pricing be lifted to meet the additional cost. It would, in fact, be much fairer, in such case, to specify tested pipes, for if the material specified be used, it is hardly reasonable that any failure due to a fault in the material should be the contractor's risk. But purely as a matter of policy, it would be better to specify tested pipes, for if a drain fail under test, and rectification has to be made by replacing some of the pipes, it is but seldom that the work of renewal will be so well done as to leave no risk of future trouble. It is but occasionally that drain trenches in ordinary ground are so closely shuttered that all risk of any of the earth falling in will be avoided if the filling in is delayed for a longer time than was anticipated. Consequently, if defective pipes (and for present purposes it must be borne in mind that pipes classed as best may prove to be defective under pressure) have to be replaced with others, the work is urgent. This leads to the new pipes being "sprung" in, for although there is a patented collar obtainable that gets over the need for springing, it is not yet so widely and generally used as to be everywhere commonly stocked. When pipes are sprung in, the inside of the joint cannot be reached and wiped clean unless a cord can be floated down to a manhole below or be pushed through with drain rods, so that a bundle of rags can be used for the purpose. It thus happens that the new joints may either have cement protruding inside or may be hollow, and so be the occasion of stoppage later on. A clerk of works would, of course, give supervision to the making of these joints, and would examine the inside of the drain with reflecting mirrors, but a builder may be in business many years before coming into contact with one able both to check and assist him at all points of difficulty. Meanwhile, the estimator must go on doing his impossible sums and making what use he can of his experience and the law of averages until the architect sees fit to give him better help over the more difficult places. Or is that too much to expect from those we are taught to look up to as leaders in this joint adventure of building?

In provincial towns and rural districts builders of good standing and established reputation are frequently called upon to examine and report on the sanitary condition of properties that are about to be sold, or leased, or where a medical adviser has some suspicion that a patient's condition may be attributable to defective drainage. It is a job that calls for judgment with discretion, for there is a good deal more to be done than to fill, or attempt to fill, the drains with water, with a view to finding out whether they leak. In point of fact, in the great majority of cases an attentive look round by one having experience of the work would be sufficient to assure him that the drains would be very unlikely to "stand up" to the water test. As, however, the circumstances may sometimes be such as to make it necessary that a water test shall be applied, and as the method of procedure differs a little from that used in connection with newly-laid drains, it may be of advantage to consider this test first. A preliminary inspection will have to be made before we can determine what appliances we shall require, though if the job is at a considerable distance from the office we may find before we are through that we need a nearly complete kit. If the system has been in service for a considerable number of years, it may, though appearing to be comparatively simple, provide us with many surprises.

It may, perhaps, best serve our present purpose if we select a typical case and run over some of the main points. We will therefore take a good-class small detached residence standing in its own grounds and having a garage that was at one time a stable and coach-house. Assume it to be empty, to be served with a public sewer, and to be connected to a public water supply. Assume further that a plan of the drains is not available. Having examined the premises we shall have noted the following points:—

That the diameter of the main drain, if not exceeding 4 in., may indicate that the stable drains were not connected to the house drains, but ran to a liquid manure tank. This point will, however, require careful verification in any case.

That we shall require a ladder to reach the top of the soil and ventilation pipes.

That arrangements for turning on the water will have to be made with the water company concerned.

That manhole cover keys are, or are not, required.

That a hosepipe will be of assistance, but must have a suitable connector.

That a certain length of drain rods will be required.

That we may require a pick in addition to a shovel, and perhaps crowbars as well.

We note one or two other points bearing on the question of probable amount of time to be given to the work, and as to whether we can manage with only one labourer or require two to be in attendance. Our further list of requisites will include drain stoppers, various, but including one bag stopper; a smoke-testing machine and fuel for same; reflecting mirror and candles; a drawing-board, such as students use, with half a dozen sheets of typewriting paper pinned on, and a tee-square, set square, scale rule, and pair of compasses; a 5-ft. rule and a tape. Some means of stopping low-lying gulleys may be wanted, and it may be necessary to improvise them on account of wide differences in shape, or because of their number, when branch drains do not run direct to inspection chambers. If one of the labourers is an old hand, he will probably manage with slates, some 6 by 6 or 9 by 9 tiles, and a bucket of tempered clay. An old tin will do for unsealing gulleys. The top of the ventilating shaft, or shafts, will require stopping up. Should we be testing for an architect under definite instructions to apply a minimum head, we may want additional apparatus, including a container with hose union, and a short piece of hose to fit this and to fit a plug, as later described.

It will be noticed that no mention has been made of levelling instruments; they will seldom be required, for from manhole to manhole the fall of the drains can be accurately ascertained by measuring the depths at which water stands in them, and usually the fall of branch drains to gulleys can be similarly ascertained if they terminate in an inspection chamber. In other cases the hose may be used for levelling at a pinch, but the preliminary inspection will have informed us whether better means are desirable.

Though we are dealing with a water test, the first test we require to put into use is a smoke test, for it is that which will be applied to the soil pipes and ventilation shafts. The reason for using it first is that smoke travels more easily in a warm dry pipe than in a wet one (a point that has also a bearing on smoky chimneys). On a small job with but one manhole and no inspection chambers, this may offer a difficulty, as without disconnecting it may mean that the whole of the system will have to be put under the smoke test and still leave us without full information. Under a smoke test the behaviour of the float in the testing machine will quickly tell us if the system leaks and whether the leakage is little or much, but continuous pumping over a considerable length of time may prove to be necessary before the escape of smoke gives an indication of the position of the leaks. In the hypothetical case we are here considering, we will, however, assume that the soil pipe, at all events, is on a short branch drain connected to an inspection chamber direct. We therefore set the machine in motion before stopping up the ventilating extension pipe at the top, and look for the appearance of smoke. If it does not arrive, we shall possibly find that the soil pipe is trapped at the foot, and we are at once in contact with a matter that has in past time been the occasion of much controversy. We are not, however, called upon to discuss that here, our immediate concern being the testing. The trap may be unsealed by putting a plunger (purpose-made or improvised) on the end of a suitable length of rods dropped down from the top, or by pushing the plunger up the drain branch and then withdrawing it smartly, so as to create a partial vacuum as in a pump barrel.

As soon as smoke is visibly coming out at the top of the shaft, a suitable stopper will be inserted and as an assurance that it is tight it may, if placed a little way down the pipe, have some water poured over it. We must, however, remember to remove it at completion as well as all other tackle: to ensure that this is done, everything should be checked over on completion of the test. If the soil pipes have caulked lead joints in

fairly good condition (though the float may warn us that there is a leak somewhere) it may be some time before we discover whether it is in the soil pipe, the short branch drain or both.

One of the arrangements we made was that the water company should turn on water for the test, and one of the matters we gave attention to at the time, though it has not so far been mentioned, was to ascertain whether there was a second stop-tap on the rising main, and whether as a precaution against frost the internal hot water system had been emptied. If so, we do not wish to refill if it can be avoided (for to do so may mean that we shall have to take a manlid off the boiler before we can empty it again). We are almost sure to find that at least one draw-off tap is connected to the rising main to give a direct supply for drinking purposes. If so, and it is not altogether too inconveniently situated, we resolve to use water from this tap for the test, and if no other means of shutting down are available we tie up the ball cock in the cold storage tank. Another precaution we took was to restore the seal to any internal water closet traps, for we do not want to fill the building with smoke, and evaporation may have been proceeding for some considerable time. If we find we have forgotten to bring a bucket with us because it is not on the list, we go out and grumble at our leading hand because, having been out with us before, he should know all about our requirements. If he has not the necessary experience, our task will be everywhere more difficult, and we may find that he has put out the fire in the machine and saturated the fuel (cotton waste) by lifting off the cover without keeping his pump moving.

(To be continued.)

SOUTHAMPTON CIVIC CENTRE

A description of the new municipal offices at Southampton is given on page 849. Below is a list of the firms associated with the work.

The general contractors were Messrs. William T. Nicholls, Ltd., of Gloucester, and the following firms were engaged on the work :—Henry Osman and Sons, Southampton, excavation and foundations; The British Reinforced Concrete Engineering Co., Ltd., Stafford, steel reinforcement; Edward Wood and Co., Ltd., Manchester, steelwork; Norman and Underwood, Ltd., Leicester, plumbing; G. N. Haden and Sons, Ltd., heating and ventilation; Grierson, Ltd., electrical work; Diespeker and Co., Ltd., "Big Span" floors, terrazzo paving; Associated Portland Cement Manufacturers, Ltd., "Blue Circle" cement; Luxfer, Ltd., metal windows; Mellowes and Co., Ltd., Sheffield, roof glazing; The Building and Insulating Material Co., Ltd., "Bimol" partition blocks; Smith, Major and Stevens, lifts; C. Harvey and Co., ornamental metal work, grilles, etc., and electric fires; Ragusa Asphalte Paving Co., Ltd., asphalt; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt; Higgins and Griffiths, Ltd., electric light fittings; Shepherd and Hedger, Southampton, furniture and fittings; J. P. White and Sons, Ltd., Bedford, council chamber furniture and panelling; William T. Nicholls, Ltd., Gloucester, panelling in committee rooms and mayor's parlour; James Gibbons, Ltd., Wolverhampton, lock and door furniture; Keystona Paint Sales Co., paint; Sika, Ltd., waterproofing; Empire Stone Co., Ltd., cast stone; Hollis Bros. and Co., Ltd., Hull, wood block floors; Fenning and Co., Ltd., marble in entrance hall; Synchronome Co., Ltd., electric clocks; May Acoustics, Ltd., acoustic tiles and plaster; Dictagraph Co., Ltd., "Dictagraphs"; Celotex Co. of Great Britain, Ltd., "Celotex" insulation to roof; G. Jackson and Sons, Ltd., fibrous plaster; Nicholls and Clarke, Ltd., sanitary fittings: Chubb and Sons, Ltd., strong-room doors: G. Alexander, stone carving and modelling of main window; The Dorian Studio, lettering and sign-writing, executed by Dene and Co., Southampton; Morant Bros., Southampton, stone worked on site.

THE PUBLIC HEALTH CONGRESS

The Rt. Hon. Sir Edward Hilton Young, M.P. (Minister of Health), opened on Monday at the Royal Agricultural Hall, Islington, the annual Public Health Congress and Exhibition.

Introduced by Sir Frederick J. Willis, the Minister, in declaring the Exhibition open, stated that these were difficult times, when local authorities had to make every effort to obtain full value for their money, or, in other words, to practise economy. Times like the present had one peculiar characteristic, namely, that the claims of economy made us overhaul our methods to see where money could be saved. How successfully that could be done was apparent from one case he would mention, an infirmary where a system of centralised accountancy had reduced maintenance cost by 7 per cent., although the services offered had exceeded the previous year's figures. He had noted with pleasure that the subject of smoke abatement was to receive attention. Smoke was an evil which afflicted civilisation, and more attention and more deliberation directed towards securing remedial measures were needed, though the first thing necessary was to get the public into the state of mind where they should demand a smokeless land. Yet another subject to be dealt with was Town and Country Planning. The Act that had been passed would, he felt sure, be found most valuable, for in it powers were given to local authorities to prevent buildings being placed where proper sewage facilities were not available.

We append summaries of some of the papers dealing with subjects of particular interest to the building world.

Non-Ferrous Metals and Water Supply.

Mr. G. L. Bailey, M.Sc., in speaking of the "Work of the British Non-Ferrous Metals Research Association with Reference to Water Supply," drew attention to a new alloy, the B.N.F. Ternary Alloy, of which the resistance to mechanical damage was about 100 per cent. higher than lead, which meant, consequently, a much lighter pipe for the same water-carrying capacity and resistance to hydraulic bursting could be used, resulting in an economic advantage as well as a technical one. None of the tests on properties such as workability, corrosion resistance, plumbosolvency, etc., showed the alloy to be less satisfactory than lead. The Association was carrying out tests on frost-bursting of water-pipes, and the tests were being extended to include the less pure commercial leads of the type frequently used for ordinary water-pipe service. Galvanised equipment and soft solders and soldered joints were other matters which were receiving attention.

Heating Living Rooms.

Sir Leonard Hill, F.R.S., Hon. A.R.I.B.A., who spoke on Tuesday on "The Correct Use of Heat Rays for Producing Comfort in Living Rooms," described various experiments conducted into the effect of various forms of heat upon persons, especially of dull red or dark heat, which gave off at body temperature rays which had the effect of closing the nose and causing catarrh and generally affecting the respiratory membrane. The most valuable conclusion drawn from his research was that cool air should be sent through all rooms where there were sources of dull red or dark heat. The close relationship between the state of the skin and asthma was generally recognised. Some 60 per cent. of asthmatics suffered from some form of dermatitis, and many were benefited by light baths. It was claimed by Storm van Leuwen that the impulsion of pure dust-free air through sleeping compartments relieved many cases of asthma and chronic bronchitis. It might be that the beneficial effect was partly due to the cooling of the face which antagonised the effect of the infra red rays which were potent in a shut-up room. By ventilation of rooms with cool air the danger of catarrh was reduced. It was known that open-air workers suffered very little from colds, and had a low death rate. That research then threw fresh light on the explanation of the beneficial effects of open-air treatment. As well as ventilating our rooms with cool air, we might use a certain amount of water vapour to take off the stuffy effect of infra red rays. Best of all, we could use sources of heat which gave off more of the nose-opening rays, such as the modern gas fire. The gas industry had been improving the gas fire on the right lines. The dull red electric fire required to be made brighter. Incandescent sources, gas or electric, were the best to use for treatment of rheumatism and painful affections, the more penetrating rays being of greater utility. There was no peculiar merit, as had been claimed, in dark sources of heat.

Health and Housing.

On Wednesday, Dr. C. Killick Millard, M.D. (Medical Officer of Health, Leicester), read a paper on "Health and Housing, with special reference to National Policy." The speaker commenced by drawing attention to the fact that while there was an urgent need for more houses in this country and a vast amount of idle capital in the hands of the banks and building societies which the latter did not know what to do with, we yet had an army of men unemployed in the building and allied trades. Housing and health were intimately related, and while there were, of course, other factors besides bad housing which contributed largely to high mortality in slum areas, it was significant that in new housing estates the death rate, including infant mortality, was greatly reduced. Undoubtedly great, also, was the psychological effect of bad housing upon morals. Something, of course, had been done. The worst and blackest of the slums had disappeared from many towns, and overcrowding was certainly less than it used to be, while the amenities of working-class houses had been greatly improved by provision of public water, improved sewerage, provision of gas for lighting and cooking, provision of public parks, swimming baths, etc. But the very fact that so much had been accomplished and that it had yielded such a rich harvest in improved health was all the more reason why we should push on with the good work. The additional expenditure from the public purse still required "to put our house in order" was not really so formidable that we needed to be unduly alarmed. The total capital expenditure on subsidised housing since 1919 was now £630,000,000, of which it was estimated that £380,000,000 was in respect of building by local authorities and £250,000,000 by private enterprise. Over one million houses had been built with State assistance, a truly magnificent effort, yet it was disappointing that in spite of all that had been done, the shortage of houses, so far at least as the poor were concerned, still remained. He (the speaker) agreed with the Ministry of Health's dictum, which was to the effect that local authorities should concentrate on the provision of houses to let at the lowest possible rents and that private enterprise should be encouraged to build the larger houses. He also agreed with the Ministry's statement that local authorities should limit the provision of new houses "to the number required to meet the urgent need of applicants with children who were living under overcrowded conditions in insanitary houses." Children had not always received the consideration they should have had in the allocation of houses. Far more than grown-ups they benefited by the good environment of municipal houses, and it seemed a sheer waste to allow a couple without children to go on occupying a municipal house with three bedrooms. To those who had already been given municipal houses (and there were many such) he would politely say at the end of a year: "Produce a baby, or I must ask you to go to make way for a family who will derive more advantage from the house than you can do." As to

the difficult question of rent, he thought the only solution, if it were really wished to help the large families and enable them to take proper advantage of municipal houses, was to adjust the rent to their circumstances. The best and fairest way was to inaugurate a scheme of rent rebates based on the number of dependent children, combined, if thought desirable, with a means test.

After dealing with the matters of "Management and allocation of accommodation," "working-class owner occupiers," and "Rent Restriction Acts and the question of Decontrol," the speaker turned to the question of Slum-clearance. Local authorities were showing considerable reluctance to make use of the powers conferred on them by the 1930 Act. Clearly there must be many areas which were not really bad enough to call for demolition of all the buildings in the area, and where very real improvement could well be effected. It was naturally most difficult to get owners to spend money on even urgent repairs in localities scheduled as clearance areas. Most assistance would be got probably out of procedure under Part II of the Act, Sections 17 and 19, *i.e.*, what was known as the "individual house" procedure.

Open Spaces and Town Planning.

The provision of open spaces and playing fields as affected by the Town and Country Planning Act, 1932, was dealt with by Sir Lawrence Chubb. Although the Town and Country Planning Act fell short of the desires of those who welcomed its introduction into Parliament, it should, said the speaker, prove a factor of real importance in the provision of open spaces and playing fields. How far the Act would solve the problem of the dearth of facilities for recreation must depend upon the extent to which local authorities were prepared to take advantage of its provisions. That need for immediate action existed in every part of the country could not be gainsaid. Every year added to the difficulties of the situation as centres of population changed and developed. Councils possessed of the triple virtues of foresight and wisdom and courage would see to it that every effort was made to ensure that henceforth there should be no substance in the complaint of the hundreds of thousands of young people who to-day had "Nowhere to play."

THE EXHIBITION.

The Exhibition, although not quite as large as in previous years, reaches a very high standard of excellence, both of exhibits and the manner in which they are displayed. As Sir Edward Hilton Young said in his opening speech, it is good, at a time when so much ingenuity was being employed towards the ends of manufacturing cannon and the like for destroying human life, to see an equal skill devoted to the saving of life through improving the health of the nation. The exhibits are of particular interest to public authorities and their architects and surveyors. The latest in cooking equipment for large institutions is well displayed on Stand 38 by MESSRS. BENHAM AND SONS, LTD., who are the actual manufacturers of their various apparatus for cooking by gas, steam, coal, electricity and oil fuel. Those interested in the fitting up of kitchens should take the opportunity of examining the high standard of workmanship and material used. For houses and buildings out of reach of public drainage service, the ELSAN MANUFACTURING CO. provide the "Elsan" chemical closet, examples of which may be seen on Stand 128. Various models are on view, by all of which a guaranteed odourless and hygienic sanitary service is economically given. These closets have been on the market for a good many years, and improvements have from time to time been made. We notice especially this year a special anti-splash reflector which prevents there being any gap between the lift-up seat and the inner container, with advantages that are obvious.

THE GRANWOOD FLOORING CO., LTD., exhibit on Stand 95 a floor laid with "Granwood" floor blocks in various colours. The floor is designed to show a method of radiant heating adopted by Mr. G. H. Widdows, the Derbyshire County Architect, for use in open-air schools and public institutions, which, we believe, has been very successful. "Granwood," apart from use in this direction, has been employed for solid flooring in over 500 schools and public institutions. The special features are warmth, fire and water resistance and high degree of polish, and lack of expansion or contraction. MESSRS. JONES AND ATTWOOD, LTD., display two sewage distributors on Stand 90. The "Tractum" chain-drive water-wheel distributor is suspended from the central column on a ball-thrust bearing and gives, as the model well shows, a positive drive without the necessity of a rail or even a wall. A very low head is required to operate the short water-wheel. The second model, the "Fan Spray" pipe arm sewage distributor, is operated by jets from an open weir gate, and is fitted with a governor jet at the outer end, which regulates the speed of the machine during heavy flows. This is an interesting exhibit. RONUK, LTD., on Stand 27B, besides a large variety of sanitary polishes, make a special display of their "Colron" wood-dye. This is a quick-drying, penetrating, preservative stain which, while bringing up the texture of the wood or plywood, does not raise the grain. The dye is produced in various shades and colours, and some very attractive results can be obtained. Several exhibits of much interest are to be seen on Stand 96, that of MESSRS. TUKE AND BELL, LTD. A model which demonstrates this firm's system of sewage purification for country houses will attract the attention of those architects not already familiar with it, while municipal architects should be keenly appreciative of a hygienic hot-air drier for drying the hands, eliminating the expensive and insanitary methods of roller towels. Some examples of armoured kerbing in ferro-concrete will interest road surveyors.

THE BUILDING RESEARCH STATION

QUESTIONS AND ANSWERS.*

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for general application to all similar problems.

Failure of Paint on New Concrete.

A firm of contractors asked for a report on certain defective painted work. The paint, a special proprietary material which was claimed by the manufacturers to be suitable for application to new concrete, had been applied to the soffit of a reinforced concrete roof which was covered above with asphalt. The shuttering for the concrete had been carefully levelled to obtain a fair face, and the fins on the concrete at the junction of the shutter boarding had been neatly struck off; a skimming of Keene's cement had been used to level up the concrete soffit at the board joints where this was required.

There were two distinct types of failure:

(1) General spotty discoloration and tackiness of the paint over large areas.

(2) Peeling of the paint film along the line of the joints in the shuttering.

The appearance of the peeling was so bad, with paint hanging in ribbons, that the very serious general discoloration and tackiness almost escaped observation. It was stated that the paint had been applied at a time when the concrete was still somewhat damp; it had been assumed that the peeling was due to some peculiarity in the composition of the cement which had been used for facing up.

Reply.—Both types of failure which have occurred in this case are quite common and have been dealt with in the Station's publications (Building Research Bulletin No. 11: "The Effect of Building Materials on Paint Films." H.M. Stationery Office, price 2d. net).

The discoloration and tackiness of the paint are typical of failure by chemical action which takes the form of saponification of the oil by the combined action of alkalies and free lime in the cement. Premature application of the paint, when the concrete still contained a large amount of moisture to convey destructive salts to the paint film, is the most important factor in this case. Had the concrete been allowed a reasonable time for the moisture to escape it is quite possible that a specially resistant paint, such as was used in this instance, might have remained unharmed.

The peeling of the paint film is typical of the action of entrapped moisture. The asphalt covering prevents any drying above, and the moisture in the concrete must escape by way of the more vulnerable paint film. The reason for the localisation of the failure along the lines of the joints in the shuttering must be conjectural; there is presumably some difference in the porosity of the concrete at the joints and over the main area of the ceiling. The use of a skimming of Keene's cement is probably not a significant factor, and, in fact, a certain amount of peeling could be observed where no skimming had been applied.

It should be noted that in a case of this kind, failure is inevitable if the paint is applied before the concrete is substantially dry. There are certain proprietary paints specially prepared for use on concrete surfaces, and many of these are excellent; the best of them, however, cannot be expected to withstand conditions such as existed here.

Bursting of Sockets of Sewer Pipes with Neat Cement Joints.

A firm of cement manufacturers wrote to the effect that in most cases of bursting of the sockets of stoneware sewer pipes, it is found that joints have been made in neat cement; the builders, or those responsible, invariably advance the explanation that "hotness" of the cement is the primary cause of failure.

In forwarding specimens of a recent case, and asking for a report, they quoted the complainant's letter, which said:—"These drains were laid early last February, and passed the preliminary test at the end of that month. When the final test was applied recently to obtain the Habitation Certificate, two lengths of drain were found to be faulty. The ground was opened up, and in each length practically every socket was found to be split. The nature of the fracture was the same in each case, and was undoubtedly due to the cement being too hot."

Reply.—The specimens have been superficially examined, and it is most probable that failure was due not to the cement being too hot, as was suggested, but to expansion of the neat cement. Cement mortars and concretes undergo a progressive expansion over long periods when stored under continuously moist conditions. The amount of the expansion depends upon the proportion of cement in the mix and, obviously, neat cement will show the greatest expansion. It is common knowledge that these materials shrink when stored in dry conditions.

It is well known that neat cement jointing is sometimes demanded in specifications, and even by local authorities' by-laws, and

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that its use has been common practice in the past, but that, nevertheless, under continuously damp conditions cracking and breaking of the sockets of sewer pipes has often occurred. If the joints are left open to the atmosphere long enough to allow the cement to dry out, sufficient drying contraction may take place to permit of the subsequent expansion of the cement under damp conditions without injury to the pipes.

In order to reduce the likelihood of failures of this kind, it is desirable to use sanded mixes for jointing mortars; a mix consisting of two parts of sand to one part of cement should be sufficiently dense to give satisfactory results. The sand will not only reduce expansion of the mortar under damp conditions, but also the equally objectionable shrinkage if drying takes place.

Expansion of Wood Block Flooring.

An architect required advice in connection with the expansion of a wood-block floor in a house. It was stated that the house had a lounge hall floor paved with 1-in. oak blocks, laid in mastic, and stained and wax-polished. The sub-floor consisted of reinforced concrete, 4 in. to 5 in. thick, and the surface was screeded with cement mortar in which an integral waterproofing admixture had been used. As there was no haste for completion of the work, the oak flooring was not laid until some seven months after the concrete, the house being kept warm in the interim by fires and radiators; the object of this delay was to allow ample time for the new concrete to dry out. Within a month of laying, the floor had lifted and swelled badly, and this was made good, but the floor continued to give trouble and, ultimately, the sub-contractors for the flooring refused to accept any further responsibility in the matter. It was stated that when a portion of the floor expands and bulges the space immediately under the bulge is found to be wet, and remains so until the floor is relaid in mastic.

Reply.—It is obviously a matter of some difficulty to offer any definite comments in a case of this sort without first-hand knowledge of the conditions. From the description of the failure, however, we should consider that it is not abnormal.

It is often assumed that a solid concrete floor is impervious to moisture; this assumption, however, is quite unwarranted. Actually with a good, dense concrete laid on fairly dry ground, the rate of permeation of moisture will be slow and the small quantity which reaches the surface is readily absorbed by evaporation in a building in ordinary occupation. If, however, the concrete is covered with an impermeable layer so that evaporation is prevented, it will very often be found that a film of moisture collects on the face of the concrete below the impermeable material. We are unable to offer a full explanation of the way in which this film of moisture forms, but it seems quite likely that condensation is an important factor. The addition of an integral waterproofing admixture does not affect the problem very much; a material of this kind may reduce the rate of permeation of moisture, but cannot prevent it completely.

With a wood-block floor laid on concrete resting on the ground, it is evident that moisture will rise by capillary forces, and may reach the wood-blocks and cause them to expand unless an impermeable film is interposed. Actually in practice the bitumen mastic in which wood-blocks are bedded provides this impermeable layer, and the success or failure of the floor must depend on the manner in which the mastic is laid. If the mastic is discontinuous, or is permeable on account of some defect in composition or handling, it will be evident that some greater or less amount of moisture will reach the wood-blocks and cause them to expand. It will be seen, therefore, that the trouble in this case is most probably due to the existence of discontinuities in the film of mastic, and in this way moisture from the ground has reached the wood-blocks.

It is often found that wood-block floors expand and buckle when laid in new buildings. A considerable amount of water is necessarily introduced in brickwork and plasters and, consequently, in the early life of the building, the wood-blocks are exposed to an atmosphere of high humidity. The blocks must be dried to a moderate moisture content before laying, otherwise they would lose moisture, shrink and become loose when at a later stage in the history of the building the conditions become less humid. It will be appreciated, therefore, that it is no unusual matter for a certain amount of expansion to take place, and we believe it to be the ordinary custom of the trade to provide for this expansion by leaving margins open as long as possible, and on occasion it may be necessary to release the expansion by trimming a row of blocks. In the present instance, however, the precaution of delaying the floor laying for seven months, whilst heat was applied to drive off the original moisture in the building fabric, should have been adequate to prevent any serious expansion.

The appearance of moisture below the blocks would be taken as a certain indication that moisture is obtaining access from below, and there seems to be no alternative to relaying the floor completely, taking care to ensure that the mastic forms a continuous film.

Corrosion of Lead by Cement Mortar.

Advice was sought on a recent lead failure. An architect required an explanation for the deterioration of lead laid on a cement mortar screeding over certain concrete dormers; leadwork used in precisely the same manner in another part of the building remained sound and unaffected. He also wished to know whether it is always advisable to insert a protective material, such as building paper, between the concrete and lead.

Reply.—From a superficial examination of the specimen submitted, this is clearly a typical case of corrosion of lead by cement mortar. It is possible that the cause of variation in the state of the lead on the different windows is due to the fact that, where there were windows still unaffected, the screeding was left uncovered for a short time. This may have allowed the cement time to carbonate, so reducing the liability of attack on the lead. Carbonation may occur very rapidly under certain weather conditions.

It is always desirable to provide some protection for the lead, especially if large areas are in contact with cement mortars or concretes. Building paper probably would afford adequate protection, but absolute safety would be obtained with a bituminous paper or a thin bituminous felt. This question is dealt with in Building Research Bulletin No. 6, "The Prevention of Corrosion of Lead in Building," H.M. Stationery Office (price 4d.).

Heat Insulation of a Concrete Roof.

An architect proposed to specify 2 in. cork slabs to be laid on a flat concrete roof immediately beneath a layer of asphalt. He wished to know whether there was a better or more economical method of construction, not only from the point of view of heat insulation requirements, but also with reference to the life of the asphalt and cork.

Reply.—The problem is essentially two-fold:—

1. To prevent excessive temperature rise in the rooms immediately below the roof, and also in the roof slab itself, due to absorption of solar radiation.

2. To reduce the heat losses from below the roof in cold weather.

Insulating materials are useful in both respects, and the merit of any specific material as an insulator can only be judged by a knowledge of its thermal conductivity. In selecting a material it would be presumed that a certain definite value of insulation is decided upon, and it then remains to select a durable material, and to use it in sufficient thickness to obtain the required amount of insulation. The economic aspect is, of course, an important factor influencing the choice of a material. Manufacturers of heat insulating materials should be able to produce authentic thermal conductivity figures, and there are also values available in various publications. Slab cork, for instance, is an excellent heat insulating material; in order to obtain equivalent insulation to 2 in. cork slabs a thickness of at least 9 in. of any normal concrete would be required, and probably considerably more. Durability of the insulating material is, of course, a further important consideration, especially where it is used externally, but, at the moment, it has not been possible to secure information as to the life to be expected of slab cork. Diatomaceous earth hollow blocks are often used for this purpose, and they combine excellent heat insulation with the likelihood of permanence under any conditions likely to be experienced on a roof.

It is possible that asphalt contractors would consider a cement mortar screeding necessary, either on diatomaceous earth blocks or on slab cork, as a base for the asphalt. We should not, however, be convinced that this is essential. Mastic asphalt, due primarily to its dark colour, absorbs solar radiation very readily, and quickly attains a high temperature. During the hot weather some months ago this was the cause of numerous cases of cracking of supporting brickwork due essentially to rapid thermal expansion of concrete roofs covered with asphalt.

Experiments at the Building Research Station have shown that this rapid temperature rise under asphalt may be very appreciably reduced by the provision of a white reflecting surface, and work is now in progress with a view to finding the most suitable method of whitening the surface of the mastic. If insulating material is used under the asphalt it must be borne in mind that this, together with any type or screeding, will attain a high temperature, and provision should be made for thermal expansion at the boundaries of roofs of large extent. It would be preferable, even where insulation is used, to whiten the asphalt surface of large roofs.

NEW BUILDINGS IN LONDON

Barnes.—ALTERATIONS.—The Rev. W. P. Dott, Rectory, Barnes, S.W.13, is appealing for funds to enable a start to be made upon a scheme for the stripping of the existing roof of Barnes Church, re-roofing, and the carrying out of improvements to the electric lighting. The cost will be about £1,200.

Bromley.—ADDITIONS.—The Managers of the Roman Catholic elementary school, Plaistow-lane, have approved a scheme for extensions and alterations to secure accommodation for 184 infants. The contract has been placed with Messrs. John Marsland and Sons, Ltd., 56, South Molton-street, W.1. The plans have been prepared by Mr. J. H. Beart Foss, F.R.I.B.A., 9, The Common, W.5.

Carlton-gardens.—OFFICES.—No. 4, Carlton-gardens has been demolished and new buildings are being erected on the site from the designs of Sir Reginald Blomfield, R.A., 1, New-court, Temple, E.C.4. Messrs. Dove Bros., Ltd., Cloudesley-place, Islington, N.1, are the builders, and the Bath and Portland Stone Firms, Ltd., are supplying the Portland stone. The surveyors are Messrs. G. R. Tasker and Sons, 38, John-street, Bedford-row, W.C.1.

Croydon.—HOUSES.—The Town Council are now inviting tenders for the erection of houses in Windmill-road and Beulah-grove. The plans have been prepared by the Borough Engineer and Surveyor.

Ealing. — FLATS. — Messrs. Hendry and Schooling, 6, Bedford-row, W.C.1, are the architects for flats being erected in Gunnersbury-avenue, W., for the Second United Women's Homes Association, Ltd., Vandon-street, S.W.1. The builder is Mr. R. Mansell, 17-23, Grant-road, Croydon. This paragraph is in lieu of the one that appeared in our issue of October 28.

Finsbury.—REBUILDING.—Nos. 30-36, Great Sutton-street, and 30, Little Sutton-street, are to be rebuilt. The architect is Mr. Herbert A. Wright, 35, Pentonville-road, N.1, and

Messrs. A. Class and Son, 80, Chapel-street, N.1, are the builders.

Finsbury.—DWELLINGS.—The B.C. recommend the erection of 119 dwellings on the Baker-street site, and recommend the acceptance of the tender of Messrs. Gee, Walker and Slater, Ltd., 32, St. James's-street, S.W.1, at £49,742.

Harley-street. — REBUILDING. — For new premises at No. 63, Messrs. Wimperis, Simpson and Guthrie, FF.R.I.B.A., 61, South Molton-street, S.W.1, are the architects. The building work has not yet been settled.

Hendon. — RECONDITIONING. — H.M. Air Ministry has placed a contract with Messrs. J. Laing and Son, Parklands, Mill Hill, N.W.7, for reconditioning and alteration to hotel for officers' quarters at Hendon, N.W.

Lewisham.—HALL.—The L.C.C. has recommended the purchasing of a site in Rangefield-road, Downham, to the Shaftesbury Society and Ragged School Union, 32, John-street, W.C.1, for the erection of a mission hall.

Lower Sydenham. — FACTORY. — Messrs. Chamberlain and Willows, 23, Moorgate, E.C.2, have been appointed architects for the design of a modern new factory for the British Cellulose Lacquers, Ltd., to be built at Lower Sydenham. Plans will include a two-floor office block. It is understood that no contracts have yet been placed.

Newington.—REBUILDING.—Messrs. Hoare and Co., Ltd., Red Lion Brewery, St. Katherine's-way, E.1, are proposing to rebuild the "Tankard" public-house, 178, Walworth-road, S.E. The plans are by the brewery's own architects. No building contracts have yet been settled.

Potters Bar.—BUILDINGS.—A new company, called the Consolidated Industrial and Agricultural Investment Corporation, Ltd., 17a, Cork-street, W.1, has been formed to carry out building developments. The programme aims at the acquisition of sites for the erection of working-class houses at Potters Bar. A further scheme concerns the erection of a huge block of flats, chambers, etc., on a site in St. James's-square, S.W.1. The architects are Messrs. Elcock & Sutcliffe, FF.R.I.B.A., Adam House, 62, Strand, W.C.2. No contracts have been placed yet.

Romford.—SCHOOL.—The Essex E.C. recommend £33,948 for a new senior council school in Pettits-lane.

St. James's-street.—ALTERATIONS.—Messrs. Truett and Steel, Ltd., 71, High-street, Thornton Heath, are the builders for alterations to No. 61. Messrs. H. Williams, Holliday and Partners, 49, Chancery-lane, W.C.2, prepared the plans.

St. Pancras.—FLATS.—Mr. Ian B. Hamilton, 16, Old-buildings, Lincoln's Inn, W.C.2, is the architect for a new block of flats to be erected for the St. Pancras House Improvement Society, 96, Seymour-street, N.W.1.

St. Pancras.—OFFICES —The L.M. and S. Rlv. have acquired a site in Seymour-street, N.W.1, where it is proposed to start shortly upon the erection of a block of office premises, etc. The plans have been prepared by the company's architect, at Euston Station.

Shoreditch.—DWELLINGS.—The L.C.C. has placed a contract with Messrs. Gee, Walker and Slater, Ltd., 32, St. James's-street, S.W.1, at £9,700, for the erection of a block of 12 dwellings on the Whitmore estate.

Stepney.—SHOPS.—The L.C.C. has placed a contract with Messrs. W. H. Gaze and Sons, Ltd., High-street, Kingston-on-Thames, at £3,746, for three shops, two in Wentworth-street and one in Bell-lane, E.

Upminster.—STATION.—The L.M.S. Railway have authorised the erection of a new station to be called "Upminster West," situated at Hornchurch-road bridge, between Hornchurch and Upminster.

Westminster.—EXTENSIONS.—The London Coastal Coaches, Ltd., have acquired property adjoining their large coaching station in Buckingham Palace-road, S.W.1, with a view to further extensions of the buildings and garage. The company's architects are Messrs. Wallis, Gilbert and Partners, 29, Roland-gardens, South Kensington, S.W.

TRADE NEWS

Reopening of Brick Works.

Three brick works at Peterborough, owned by the London Brick Co. and Forders, Ltd., are reopening this week, after having been closed for some time. It is stated that the reopening is due to the demand for the Phorpres cellular brick, placed on the market by this company.

Asphalt Paving Tiles.

Highways Construction, Ltd., Iddesleigh House, Caxton-street, S.W.1, issue two booklets which should interest architects. One deals with this firm's "Colorpavets," or coloured asphalt paving tiles; the other with "Monopavets," plain asphalt paving tiles. Both of these are produced for use in flooring for roof gardens, station platforms, workshops, hospitals, etc. They are said to withstand successfully both grinding and hammering effects of all kinds of traffic, and to be unaffected by climatic conditions.

Garage Equipment.

Tangyes, Ltd., of Cornwall Works, Birmingham, send us a copy of their latest garage equipment list No. 448. This list covers a very extensive range of goods, and is designed to provide for the requirements of the most up-to-date garage, the endeavour being backed up by an engineering experience of upwards of 60 years. The articles shown include car lift and turntables, car washers and washing pumps, air-compressor sets, jacks, etc.

The same firm have just issued a new edition of their hydraulic machinery catalogue, containing descriptive particulars of selected types of machinery manufactured. It is stated that Mr. G. N. Guest, M.I.Mech.E., has recently joined this firm. His name will be familiar as late managing director of Messrs. Hollings and Guest, Ltd., hydraulic engineers, and also of Messrs. Hands and Sons, Ltd., power press makers.

Store Window Lighting.

The "Gecoray" shop-window lighting system has been installed by the General Electric Company, Ltd., of Kingsway, W.C.2, throughout the entire frontage of Messrs. Selfridge's stores in Oxford-street, London. The units are installed along the frontage and the sides of each window, and are equipped with 150-watt Osram gasfilled lamps. In all 550 reflectors are installed. The illumination on the floor of the window averaged 78.4-ft. candles, the diversity nowhere exceeding 2 to 1, while on a horizontal plane 18 in. above floor level the average value was 87.5-ft. candles, and the diversity 2.05 to 1. On a plane 44½ in. above the floor, measurements showed that over a portion of the window extending to within 4 ft. of the ends the average illumination was 113.9-ft. candles, and the diversity 1.7 to 1. These figures may be taken as demonstrating both the even nature and the high value of the illumination.

A Novel Use for Pressed Steel Tank.

An exhibit which is arousing much interest at the Public Health Exhibition at the Agricultural Hall is that of the British Motor Boat Manufacturing Co., Ltd., who are demonstrating a seaside and amusement-park pastime, "Scootaboat Rides," on Stand No. 73. These miniature two-seater boats are both electrically and petrol driven and run in a steel tank of special construction, which in itself is worthy of special attention. The tank is, of course, reduced in size to meet the restrictions imposed by an exhibition of this kind. The Braithwaite pressed steel tank is unit-constructed from standardised plates, which means that, in addition to immediate delivery from stock and early completion of erection, alterations in size can be made without difficulty; any site can be suited; the weight imposed on the supports is reduced to a minimum; and the tank can be dismantled and completely re-erected in another position when required. Full details are obtainable from Messrs. Braithwaite and Co., Engineers, Ltd., of Broadway Buildings, S.W.1.

Northern Ireland Parliament Building.

Much of the lighting at the new Parliament and Administrative Building at Belfast, which has been erected for the Commissioners of His Majesty's Works and Public Buildings, to the designs and under the supervision of Mr. Arnold Thornely, F.R.I.B.A., and was illustrated in our last issue, has been carried out by the General Electric Company, of Kingsway, W.C. The main processional roadway and other avenues are illuminated by means of 74 handsome cast-bronze lanterns, each equipped with a symmetric type dome refractor and one 200-watt lamp. At intervals along the balustrade of the terrace, sixteen circular bronze lanterns are mounted on cast-iron standards of imposing design, the bases of which are flanked with rampant lions, each supporting a shield. At the back of the main building 10 massive cast-iron brackets carrying circular bronze lanterns are fixed at intervals on the Portland stone façade, and here again the mass and proportion of the units are admirably suited to their setting. The interior fittings are equally refined in design. The fine bronze pendants in the Prime Minister's Room, which we illustrate, the Members' Writing Room and the Library, are of uniform design, but vary in size. The pleasing introduction of the emblematic elk's head round the corona band adds a touch of distinction to the design, and the satin-obscured and clear cut-glass bowls complete a lighting unit admirably suited to its purpose and surroundings.

G.E.C. Pendants in the Prime Minister's Room, Northern Ireland Parliament Building.

The whole of the fixtures described above were manufactured and supplied by the G.E.C. to the designs of the architect. Messrs. T. Clarke and Co., Ltd., the London electrical engineers, were responsible for carrying out the installations, under the supervision of the engineering division of H.M.O.W.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1932.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Accrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aldershot	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Alfreton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Alnwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Altrincham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashford (Kent)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ashington	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ashton-under-Lyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aylsham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Banbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Barnsley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barnstaple	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Barrow-in-Furness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Basingstoke	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bath	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Berwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bexhill	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Birkenhead	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Birmingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bishop Auckland	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Blackburn	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackpool	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bognor Regis	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bolton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford-on-Avon	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Braintree	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromsgrove	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bromyard	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Bungay	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Burnley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Burton-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury St. Edmunds	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Buxton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Canterbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Cardiff	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Carlisle	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Chelmsford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Cheltenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chesterfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chorley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cirencester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Clacton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Colchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Coventry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cranbrook	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Crewe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cromer	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Darlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Deal	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Denbigh	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Derby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Devizes	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Dewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Doncaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dorchester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Dorking	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Dovercourt	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Driffield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Droitwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dudley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Durham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ely	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Exeter	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Exmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Fakenham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Felixstowe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Folkestone	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Frome	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Glossop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gloucester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Godalming	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Goole	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gosport	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grantham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gt. Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Grimsby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Halifax	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harpenden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Harrogate	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hartlepools	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Hastings	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hatfield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hednesford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Herne Bay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Hertford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hitchin	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hoddesdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Holt	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Huddersfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hull	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hunstanton	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Huntingdon	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Isle of Wight	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Keighley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kettering	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kidderminster	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kings Lynn	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Leeds	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leicester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leighton Buzzard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Lichfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lincoln	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Littlehampton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Liverpool	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
London—								
12 m. radius	1/7½	1/7½	1/7½	*	1/7½	1/7½	1/6½	1/2½
12-15 m. radius	1/7	1/7	1/7	*	1/7	1/7	1/6	1/2½
Loughborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lowestoft	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Macclesfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Malvern	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Manchester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Mansfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Margate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Market Harborough	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Matlock	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Melton Constable	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Melton Mowbray	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Merthyr Tydfil	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Middlesbrough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newark	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Newbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newcastle-on-Tyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newcastle-u-Lyme	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
New Forest	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newport, Mon.	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nuneaton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oakham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Oldham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Peterborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ramsgate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redditch	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Reigate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Retford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ripon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Rugby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Saffron Walden	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
St. Albans	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
St. Helens	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sawbridgeworth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Saxmundham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1 5½	1/5½	1/1½
Sevenoaks	1/4	1/4	1/4	1/4	1/4	1,4	1/4	1/–
Sheffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Shrewsbury	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sittingbourne	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
South Shields	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stevenage	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Stockport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stockton-on-Tees	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stoke-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourbridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stourport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stowmarket	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Stratford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stroud	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/–
Sunderland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swaffham	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Swansea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Tamworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Thetford	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Totnes	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/–
Trowbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Tunbridge Wells	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Uttoxeter	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/–
Wakefield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsall	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsden	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warminster	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Warrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wells (Norfolk)	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Welwyn Gar. City	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
West Bromwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weston-super-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Whitby	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wigan	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Winchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wisbech	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Wolverhampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Woodbridge	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Worcester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worksop	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worthing	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wrexham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wycombe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wymondham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
York	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st June, 1932, is 1/9 per hour.

For Building Trade wages in Scotland, see page 878.

BUILDERS' BENEVOLENT INSTITUTION

The 80th annual dinner of this Institution was held on Tuesday, at the Hotel Victoria, W.C., when Mr. George Gee, F.I.O.B., the president, occupied the chair.

Amongst the large company present were Major A. D. S. Rice, Major Leslie Shingleton, Messrs. B. C. Aldous, Joseph Armitage, K. G. Benham, T. P. Bennett, A. Strachan Bennion, Eric Burt, Ben Carter, E. Stone Collins, A. B. H. Colls, T. S. Darbyshire, F. T. Dear, Harold Dicksee, W. Doddington, C. E. Elcock, G. Topham Forrest, F. N. Gee, R. J. Gee, Erniest B. Glanfield, M. W. Godson, A. Goldstein, L. U. Grace, A. Grunspan, L. Rome Guthrie, R. H. Hellyer, Basil Hughes, D. Palmer-Jones, G. A. Lansdown, William Morris, H. A. Neal, G. H. Parker, P. Fotheringham Parker, W. E. Rice, C. Hamilton Simpson, C. J. Trollope, C. F. Ward, E. Wimperis, W. B. Wood and the secretary, W. J. Rudderham.

The loyal toasts having been honoured, Major A. D. S. Rice, F.I.O.B. (senior vice-President, L.M.B.A.), submitted the toast of the "Institution and its President." After giving some short account of the foundation of the Institution, the speaker said that no fewer than 46 builders or their widows were receiving pensions of £52 per year, in addition to three male pensioners with £39 per year. It was the Institution's boast that no case within the 15-mile radius of Charing Cross had gone uninvestigated, and no justifiable case had ever been passed over. As to Mr. George Gee, the President, it was only recently that his activities had been extended to the benefit of London. It was all to his credit that in these difficult times he should have taken the presidency and made the success of the job he had. He, the speaker, would say, however, that however good the report might be, the amount subscribed could not be too much for the work to be done.

The President, responding, offered his thanks for the very generous support accorded to the Institution in the present time of depression. Many of the old subscribers, he was sorry to see, had been compelled to withhold their subscriptions this year, but he was glad to say that not one had lost his interest in the work of the Institution. He hoped, said the President, that when things got better their names would reappear. Turning to the affairs of the B.B.I., he regretted to say that, like many societies and individuals which had invested funds, the Institution had lost in income an amount which would require £10,000 capital to produce the same income as last year. It would be necessary to find that sum if the good work was to go forward unimpaired. The amount subscribed was £1,576 10s. 6d., to which an anonymous donor had added £70—making a total of £1,646 10s. 6d. In conclusion, he wanted to offer his most grateful thanks to the officers whose help had been invaluable to him. It was a fact which ought to be known that so low were the administration costs of the Institution that no less than 93 per cent. of total funds subscribed were available for distribution.

Mr. G. H. Parker, F.I.O.B., offered thanks to the "Builders' Merchants and Allied Trades" for the generous support they gave to the cause of the Institution. Mr. Ben Carter, who responded, assured the company that any help the Builders' Merchants and Allied Trades could give was gladly given, for they knew that it was gratefully received and faithfully applied. The speaker ended with an appeal to the building industry to stop talking depression and adopt, however difficult it might be, a spirit of optimism.

The toast of "The Visitors" was proposed by Mr. C. J. Trollope, who extended a very hearty welcome to the many friends present. He also took the opportunity to offer the sincere thanks of the Committee to the president for stepping into the breach and doing his work so ably.

Mr. Edmund Wimperis, F.R.I.B.A., responded in a witty speech.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

NOVEMBER 23.

Birkenhead.—Painting.—Interiors of messroom and lavatories, main tramway sheds and adjoining workshops and stores, and Nos. 1 and 2 motor-bus garages, and part exterior of tramway sheds at Tramway and Motor Depot, Laird-st., for Corporation. R. W. Johnston, B.E. and S.

Burntisland.—Houses.—36, on Rossend housing scheme, third development, for T.C. James A. Waddell, B.S.,

Eastbourne. — Houses. — For the Corporation. Borough Engineer's Office, Town Hall. Dep. £1 1s.

Huddersfield.—Alterations, etc.—Also additions at Moorfield, Crosland Moor; and public convenience in Park-rd. West, Crosland Moor, for Corporation. B.E., 1, Peel-st.

Little Hulton.—Houses.—54 non-parloured three-bedroomed type of council house, in Hilton-lane, Little Hulton, for U.D.C. James H. Heyes, clerk. Dep. £2 2s.

Liverpool.—Railing.—293 lin. yds. wrought-iron railing and two pairs of gates, for Corporation. City E.

Manchester.—Houses.—On Wythenshawe estate. Chairman, Housing Committee, Town Hall. Dep. £2 2s. (to City Treasurer).

Stevenage.—Houses. — Ellis-av. Clerk, Council Offices. Dep. £2 2s.

Southampton. — Alterations. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1.

NOVEMBER 24.

Ballycurrane.—Repairs.—To 28 cottages at the Commons, Ballycurrane, Thurles, for Irish Sailors' and Soldiers' Land Trust, 50-51, Upper Mount-st., Dublin. Secretary. Dep. £1 1s.

Cardiff.—Painting.—Of Roath abattoir, Constellation-st., for T.C. Geo. H. Whitaker, City Architect.

Cardiff.—Additions.—Alterations and additions to 146, Clifton-st., for T.C. G. H. Whitaker, architect. Dep. £1 1s.

Dorchester.—Houses.—32 three-bedroomed non-parlour houses in blocks of 4 at Victoria-pk., for T.C. H. D. Strange, B.S., 21, North-sq. Dep. £2 2s.

Isle of Wight.—Additions.—Alterations and additions to two dwellings at St. Catherine's Lighthouse, for Corporation of Trinity House. Secretary, Trinity House, Tower-hill, London, E.C.3

Nottingham.—Station.—Sewage pumping station off Trent-lane, Sneinton, for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

Tullamore.—Houses.—46 to 57 three-roomed and four-roomed houses at Tullamore, Offaly, for U.D.C. T. S. Duggan, Town Surveyor, Courthouse. Dep £3.

Whitehaven.—Houses.—120 non-parlour type, on Woodhouse site, for T.C. B.E. and S. Dep. £2 2s.

NOVEMBER 25.

Birmingham.—Repairs.—General repairs, pointing work, etc., at Mosley-rd. fire station, for T.C. H. H. Humphries, M.Inst.C.E., City E. and S. Dep. £2 2s.

Fowey.—Alterations.—In connection with proposed installation of electric passenger lift at Fowey Hotel, for Fowey Hotel Co., Ltd. W. C. P. Gatley, secretary, 6, Fore-st.

Harrogate.—Conversion.—Of premises, Albert-st., into fire station, for T.C. C. E. Rivers, B.E. and S.

Harrogate.—Painting.—Interior of Art School, Haywra-cres.; Skipton-rd. swimming baths; interior Bilton Endowed school; Meteorological Observatory, Harlow Moor; and various lavatories, for T.C. C. E. Rivers, B.E. and S.

Newport, Mon.—New School.—Director of Education, Education Offices. Dep. £3 3s.

Reading.—Building.—Public sanitary convenience on land at junction of Caversham-rd. and Friar-st., for C.B. B.S.

Sale.—Housing.—44 houses on Sefton-crescent site, for U.D.C. E. Bleakley, S. Dep. £2.

***Sharman's Cross, Warwick.**—School.—For County of Warwick, architect, Shire Hall, Warwick. Dep. £2 2s.

NOVEMBER 26.

Auchinleck.—Houses.—26, at Auchinleck, for Ayrshire C.C. W. Reid, County Architect, 14, Wellington-sq., Ayr.

Enniskillen.—Houses.—6, in Rossorry, for J. N. Carson, Killyreagh. F. G. Townsend, Enniskillen.

Hartshorne.—Houses.—50 non-parlour houses, for Hartshorne and Seals R.D.C. Goddard & Wain, architects, Station-chambs., High-st., Coalville. Dep. £2 2s.

Leap.—House.—House on lands of Leap, Offaly, on the Kinnitty-Roscrea-rd., for Irish Land Commission. Secretary, Irish Land Commission, Upper Merrion-st., Dublin. Dep. £1.

Monmouth.—Houses.—22, at Wyesham, for T.C. B.S., 3, St. James's-st. Dep. £2 2s.

West Malling.—Pavilions, etc.—For the Kent C.C. County Architect, Springfield-Maidstone. Dep. £5 5s.

NOVEMBER 28.

Southampton.—Houses.—On Coxford housing site, for C.B. Dep. £3 3s. T.C., Civic Centre, Southampton.

Sunderland.—Repairs.—To and painting water tower at "Highfield" Institution, Hylton-rd., for Corporation P.A.C. Public Assistance Office, 17, John-st.

NOVEMBER 29.

Glasgow.—Houses. 36 in Woodhouse-st., Netherton extension, for T.C. D. Stenhouse, T.C.

***Islington.**—Repairs.—And painting to Addington Mansions, Highbury-grange, N.5, for M.B. of Islington. Town Clerk, Town Hall. Dep. £1.

NOVEMBER 30.

Gressenhall.—Installation.—Wiring and general installation of an electric lighting system at Poor Law Institution, for Norfolk C.C. C. J. Norton, A.R.I.B.A., architect, Stracey-rd., Norwich.

DECEMBER 1.

Canvey Island.—Cafe.—Cafe and shelter combined on the Labworth recreation ground, for U.D.C. H. H. L. Harrison, clerk.

Dagenham.—Fencing.—43 yds. lin. of palisade fencing 3 ft. high, 16 yds. lin. of palisade fencing 2 ft. 6 in. high, posts, gates and incidental work, for U.D.C. E. and S. Dep. £1 1s.

Hinckley.—Houses.—50, on Middlefield-lane estate for U.D.C. J. S. Featherston, E. and S. Dep. £2 2s.

DECEMBER 2.

Newport (I. of W.).—Wall.—330 ft. length of reinforced concrete quay wall at Seaclose, for T.C. E. A. Slater, B.E.

***Severalls.**—Additions.—To Mental Hospital for Essex C.C. County Architect, County Hall, Chelmsford. Dep. £1 1s.

DECEMBER 3.

Evesham. — Houses.—36, for R.D.C. R. J. Atkinson, architect and surveyor, 64, Port-st. Dep. £2.

Farnham.—Cottages.—32 in blocks of 4, at Trapes, Crondall-lane, for U.D.C. R. M. Sargent, Sanitary and Building Surveyor. Dep. £2.

DECEMBER 5.

***Croydon.**—Houses.—Windmill-rd. and Beulah-grove, for the C.B. of Croydon. Town Clerk, Town Hall. Dep. £2 2s.

London.—Extensions.—Extensions of Council's power station in Townmead-rd., Fulham, for Fulham B.C. Preece, Cardew & Rider, 8 and 10, Queen Anne's Gate, S.W.1. Dep. £10 10s.

Neath.—Houses.—For the R.D.C. Clerk, 8, New-st. Dep. £2 2s.

DECEMBER 6.

***Dunton.**—Additions.—Also alterations to Council school, for Essex C.C. County Architect, County Hall, Chelmsford. Dep. £1 1s.

Ilfracombe.—Heating.—Installation of heating system at Alexandra Hall, for U.D.C. A. J. Westaway, E. and S

***Liverpool.**—Parcel Office.—In Hatton Garden, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1.

Stourport.—Houses.—40 or 80 houses, together with construction of roads, sewers and water mains, at Tan-lane, for U.D.C. L. H. Poole, S., 58, Mitton-st. Dep. £2 2s.

DECEMBER 8.

Birmingham.—Heating.—Installation of heating apparatus, domestic hot-water and steam supplies, including calorifiers, for new ward and isolation blocks at City Isolation Hospital, Little Bromwich, for Public Health Committee. City E. and S. Dep. £5.

Portsmouth.—Flats.—30 flats (five blocks) in Yorkplace, Portsea, for T.C. R. J. Jenkins, City E. Dep. £3 3s.

DECEMBER 10.

Kiveton Park.—Houses.—24 and 6 2-roomed bungalows in Anston, including the cost of paths, drains, fences, and other items, for R.D.C. W. M. Gibson, S. Dep. £2.

DECEMBER 12.

Blackwell.—Houses.—26 houses and construction of roads and sewers in parish of Shirebrook, for R.D.C. H. Tatham Sudbury, F.R.I.B.A., chartered architect, Rutland-chmbs., Ilkeston. Dep. £2 2s.

Stratford-upon-Avon. — Houses. — 14 houses in 3 blocks of 4 and 1 block of 2 on the Clopton housing estate, for T.C. F. W. Jones, B.S.

DECEMBER 20.

Cairo.—Station.—Erection and equipment of an electric power station for the town of Faqus, for Ministry of the Interior. Department of Overseas Trade, 35, Old Queen-st., London, S.W.1. (Ref. A.X. 11550.)

DECEMBER 24.

***Portland.**—Offices.—Council offices at Fortuneswell, for U.D.C. Petter & Warren, FF.R.I.B.A., "Old Sarum," Yeovil.

MATERIALS, etc.

NOVEMBER 23.

Buxton.—Building Materials.—For T.C. F. Langley, B.E.

Dublin.—Builder's materials.—For Great Southern Railway Co. H. S. Coe, secretary, Kingsbridge Station.

NOVEMBER 25.

Warwickshire.—Road Materials.—For C.C. D. H. Brown, C.S.

NOVEMBER 26.

Dartford.—Tarred Slag.—For U.D.C. J. J. Hurtley, Clerk.

Exmouth.—Mains.—170 tons of 10-in. and 9-in. spigot and socket water mains and specials, for U.D.C. S. Hutton, E. and S.

NOVEMBER 28.

Belfast.—Castings.—Iron castings, etc., for Harbour Commissioners. M. J. Watkins, general manager and secretary, Harbour Office.

Leicester.—Building Materials.—For T.C. A. T. Gooseman, City E. and S.

NOVEMBER 29.

India.—Wire.—Supply of galvanised iron and steel wire, for India Stores Department. Dept. of Overseas Trade, Old Queen-st., S.W.1. (Ref. G.X. 11965.)

NOVEMBER 30.

East Sussex.—Road Materials, etc.—For C.C. H. E. Lunn, C.S., Lewes.

Formby.—Granite, etc.—For U.D.C. E. and S.

Huntingdonshire.—Road Materials.—For C.C. Herbert Leete, C.S., Huntingdon.

Southampton.—Road Materials.—For C.C. W. J. Taylor, C.S., Winchester.

DECEMBER 3.

Beckenham.—Kerb.—Artificial stone paving, concrete kerb, for U.D.C. H. Storr Best, S. Dep. £2.

Northern Rhodesia.—Pipes.—18,400 lin. ft. of 10-in. nominal dia. steel tubes for rising main, 2,120 lin. ft. of 10-in. nominal dia. steel tubes and 153 lin. ft. of 12-in. nominal dia. steel tubes, together with cast-iron special pipes, sluice valves, etc., for Municipality of Livingstone. Dept. of Overseas Trade, Old Queen-st., S.W.1. (Ref. G.X. 11962.)

Rowley Regis.—Building Materials.—For U.D.C. C. Buckley, Clerk.

DECEMBER 6.

India.—Steel Materials.—For Madras & Southern Mahratta Railway Co., Ltd. Secretary, 25, Buckingham Palace-rd., Westminster, S.W.

DECEMBER 12.

Sheerness.—Building Materials.—For U.D.C. W. P. Puddicombe, E. and S.

DECEMBER 19.

Gainsborough.—Road Materials.—For R.D.C. E. Donelly, S., 17, Morley-st.

DECEMBER 21.

Cairo.—Stores.—Engineering materials required for the Central Stores Mechanical and Electrical Department, Government Workshops, Cairo. Dept. of Overseas Trade, Old Queen-st., S.W.1. (Ref. 26006/1932.)

East Suffolk.—Road Materials.—For C.C. W. Jervis, C.S., Ipswich.

ENGINEERING, IRON AND STEEL.

NOVEMBER 23.

Frimley and Camberley.—Main.—Laying, of a 9-in. sewer rising main and air main, and erection of an ejector chamber and compressor house, etc., in Old Green-lane, Camberley, for U.D.C. Richard H. Porteous, E. and S. Dep. £2 2s.

Skipton.—Sewerage.—Detritus tanks, storm water tanks, humus tanks, etc., at Embsay sewage works, also supplying and laying 1,130 yds. of 9-in. sewer, together with necessary manholes, etc., at Bridge End, Grassington, for R.D.C. A. Rodwell, E. Dep. £2 2s. each.

NOVEMBER 24.

Sherborne.—Water Supply.—At Holwell and Bishop's Caundle, for R.D.C. Aubrey J. Allen, F.S.I., E., Half Moon-st., Sherborne. Dep. £3 3s.

NOVEMBER 28.

Belfast.—Shed.—Steel shed and collateral works on west side of Dufferin-rd., for Harbour Commissioners. T. S. Gilbert, consulting engineer.

NOVEMBER 30.

Iraq.—Improvements.—Excavation of three channels, together with three concrete control regulators and other subsidiary works, in vicinity of the town of Ramadi and the River Euphrates, for Ministry of Economics and Communications of Government of Iraq. Coode, Wilson, Mitchell & Vaughan-Lee, consulting engineers to Government of Iraq, 9, Victoria-st., London, S.W.1.

DECEMBER 1.

Latvia.—Water Supply.—Extension of the Riga Municipal water works and water supply plant, for T.C. Dept. of Overseas Trade, Old Queen-st., S.W.1. (Ref. G. 11969.)

DECEMBER 3.

Northern Rhodesia.—Tanks.—3 steel water tanks, for Municipality of Livingstone, Northern Rhodesia. Dept. of Overseas Trade, Old Queen-st., S.W.1. (Ref. G.X. 11963.)

DECEMBER 5.

India.—Reconstruction.—Of Nerbudda bridge at Broach, Bombay Presidency, India, for Bombay, Baroda and Central India Railway Co. S. G. S. Young, secretary, White Mansion, 91, Petty France, Westminster, S.W.1.

Johannesburg.—Steelwork.—Structural steelwork for cargo shed, Turning Basin, East London, for South African Railways and Harbours Board. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. G.X.11918.)

South Africa.—Steelwork.—Supply of structural steelwork for cargo shed, Turning Basin, East London, for South African Railways and Harbours Board. Department of Overseas Trade, S.W.1 (Ref. G.X. 11918).

Swindon.—Reservoir.—Concrete reservoir, for T.C. Dr. Herbert Lapworth, E., 25, Victoria-st., Westminster, S.W.1. Dep. £5.

DECEMBER 7.

Middlesex.—Sewerage.—For Chiswick low level sewer, upper section, contract S.14, for C.C. Dodd & Watson, engineers, 3, Central-bldgs., Westminster, S.W.1. Dep. £5 5s.

ROAD, SEWERAGE AND WATER WORKS.

NOVEMBER 22.

Birmingham.—Sewers.—Construction of about 1,110 yds. of brick and concrete and stoneware pipe sewers, together with incidental works, in Grange-rd., Erdington, and private lands adjoining, for T.C. H. H. Humphries, City E. and S. Dep. £2.

Brentford and Chiswick.—Reconstruction.—In asphalt on reinforced concrete of major portion of carriageway in Hartington-rd., and part of carriageway in Grove Park-rd., Chiswick, for T.C. L. A. Cooper, B.E. and S. Dep. £2 2s.

Glasgow.—Sewers.—Construction of road, sewers and culvert at Knightswood, No. 1 extension, for T.C. D. Stenhouse, Town Clerk.

Ramsgate.—Reconstruction.—Of Queen-st., for T.C. B.E., 16, Albion-place.

NOVEMBER 24.

Luton.—Sewers.—Sewers, relaying and new kerbs and channels, flagging footpaths and surfacing carriageways, etc., in The Meads, Broad Mead, High Mead, Felix-ave., Beresford-rd., for T.C. B.E. Dep. £2 2s.

NOVEMBER 25.

Plympton St. Mary.—Sewers.—Providing and laying complete about 100 yds. of 6 in. diameter glazed stoneware pipe sewers, manhole, etc., adjacent to the "Dolphin Inn," Newton Ferrers, for R.D.C. E. Dep. £1 1s.

NOVEMBER 26.

Bexley.—Making-up.—Of St. John's-rd., Welling, St. Michael's-rd., Welling, Danson-lane (part of), Welling, for U.D.C. G. A. Joy, S. Dep. £2 2s.

NOVEMBER 28.

Benfleet.—Making-up.—Underhill-rd., South Benfleet, for U.D.C. S. Dep. £2 2s.

Finchley.—Improvements.—To Totteridge-lane, Whetstone, for U.D.C. P. T. Harrison, 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £1.

Finchley.—Making-up.—Of Hendon-av. (third portion), West-av., Chesterfield-rd., Brentway (second portion), Nethercourt-av., Waverley-grove (second portion), Windermere-av. (second portion), Claremont-park, Essex-park, Frederick's-pl., Ravensdale-av. (portion), Friern Watch-av. (portion), for U.D.C. P. T. Harrison, E., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £3.

Kingston-upon-Thames.—Reconstruction.—Of section of Eden-st., for T.C. B.S. Dep. £1 1s.

NOVEMBER 29.

London.—Paving.—Paving and forming roadway and footways of Pragnell-rd., Lee, for Lewisham B.C. John W. Shuter, T.C.

Teddington.—Making-up.—Of Wilcox, Winchendon and Clonmel rds., for U.D.C. E. Bostock, S. Dep. £2.

NOVEMBER 30.

Carshalton.—Making-up.—Of Dale Park-avē., for U.D.C. Reginald S. Davey, E. and S. Dep. £2.

Hendon.—Making-up.—Of Cross-rd., Harrow-view, Edward-rd., Hillfield-close, Churchfield-close, The Ridgeway, for R.D.C. H. W. Rackham, S.

Hendon.—Improvements.—At Elm Park-rd., for R.D.C. H. W. Rackham, S. Dep. £2 2s.

Welwyn.—Main.—700 yds. of 3 in. cast-iron water main in Cannonsfield-rd., for R.D.C. C. B. Borthwick, S. Dep. £1 1s.

Ystradgynlais.—Surfacing.—Of playground at Yniscedwyn Council school, Ystradgynlais, for Breconshire C.C. H. C. W. Strickland, County Architect, Watton Offices, Brecon.

DECEMBER 3.

Beckenham.—Surfacing.—Of several rds., comprising total area of about 25,000 sup. yds., with bituminous material 2 in. in thickness, for U.D.C. H. Storr Best, S. Dep. £2.

Beckenham.—Making-up.—Of Abbots-way, Ambleside-av., Broomfield-rd. and Groveland-rd., for U.D.C. H. Storr Best, S. Dep. £2.

DECEMBER 5.

London.—Sewer.—Southern high level sewer No. 2, Plumstead branch sewer, for L.C.C. Chief Engineer, (C) Old County Hall, Spring-gdns., S.W.1. Dep. £10.

London.—Sewer.—Fleet storm relief sewer, Pentonville-rd. branch extension, for L.C.C. Chief Engineer. (C) Old County Hall, Spring-gdns., S.W.1. Dep. £5.

Manchester.—Sewering.—Sewering, draining, excavating, kerbing, flagging (artificial) and paving (concrete and tarmacadam) roads on Royal Oak area, Baguley, and Lawton Moor area, Northenden, for T.C. City E. Dep. £3 3s.

DECEMBER 6.

Chingford.—Making-up.—Of Templeton-av. (Part 2), in reinforced concrete, together with paths, etc., approximate area of reinforced concrete, 1,960 yds. super, for U.D.C. S. J. Hellier, E. and S. Dep. £1 1s.

DECEMBER 7.

Acton.—Making-up.—Of Allan-way and Wesley-av., for T.C. W. G. Cross, B.E. Dep. £2 2s.

DECEMBER 8.

Southend-on-Sea.—Road.—Making-up of Castleton-rd. and sewering Picketts-av., for C.B. R. H. Dyer, B.E. and S. Dep. £1.

Teddington.—Reconstruction.—Of Broad-st., for U.D.C. E. Bostock, S. Dep. £2.

Public Appointments

NOVEMBER 23.

Chiswick, W.4.—Assistant Building Inspector. Town Clerk, Town Hall.

CURRENT AND PROPOSED BUILDING WORK*

In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E. County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Ambiecote.—U.D.C. to erect 24 houses. H. Piper, S., Platts-crescent.

Barnes.—Plans have been submitted to Council for 54 garages and lavatory accommodation at 284-286, Upper Richmond-rd. by R. Dixon & Sons, for J. Holton Bush.—Plans passed: Alterations and additions to form petrol station, 172-174, Upper Richmond-rd., C. A. Lloyd, for Whytlaw & Harper, Ltd.; 4 houses, Westhay-gdns., G. W. Smith, for Sheen Common Estates, Ltd.; 6 houses, Paynesfield-av., Patrick & Blaine, for W. Burridge.

Barrow-in-Furness.—T.C. propose conveniences in Duke-st. at £1,500.

Birmingham.—Members of Institute of Mechanical Engineers proposing hall and library at £10,000.

Blackburn.—Church of England authorities proposing central school at £12,000.

Blything.—R.D.C. received M.H. sanction to revised tenders and building loan of £14,800 for erection new houses.

Bolton.—Thomas E. Smith & Son, architects, Central Chambers, Fold-st., engaged on plans for extensions and alterations to Crown-st. Corn Mills, for Henry Whitehurst & Sons, Ltd. Quantities in course of preparation.

Boston.—Sir Charles A. Nicholson, F.R.I.B.A., 2, New-sq., Lincoln's Inn, W.C.2, preparing plans for two vestries on south side of Parish Church for Parochial Church Council.

Bridgwater.—House near Bridgwater being erected to plans of W. L. Andrews, architect, Stoke St. Gregory, Taunton.

Broughton Astley.—P.C. propose pavilion for playing fields.

Buncrana.—U.D.C. adopted scheme for 48 houses at Castle Field.

Bury.—Members of All Saint's Social Club, Elton, propose rebuilding headquarters at £1,000.

Cambuslang.—At Lightburn-rd. housing site, 74 houses, to be built. P. Smith, housing architect, Clydesdale-st., Hamilton.

Cardiff.—Public Assistance Committee propose alterations in Ely Lodge at £14,000 to £15,000.

Carrick-on-Suir.—U.D.C. to build 72 houses at Carrickbeg.

Castleblayney.—U.D.C. proceeding with 26 dwellings.

Chelmsford.—Essex C.C. recommended £210 for adaptations, etc., to weights and measures office and £21,745 for extensions to County Hall.

Chester.—Parochial Council of St. Mary-on-Hill propose rebuild roof of edifice at £700.

Coleshill.—Skelcher, Machin & Watson, 156, Edmund-st., Birmingham, architects, for extensions to Bickenhall Parish Hall, Elmdon-rd., for committee.

Cookham.—R.D.C. approved:—A. F. Taylor, 5 pairs of cottages, Forest-green, Bray.

Cork.—Local Government Department written to Town Clerk of Cork, approving of lay-out plan for houses on Island Field.

County Limerick.—At an estimated cost of £250,000, Limerick County Board of Health proposes to build 1,000 cottages.

Dalton-in-Furness.—U.D.C. propose adapting former Primitive Methodist church, Cleator-st., for public hall.

Darlington.—Alterations to existing stairway at Town Hall, also emergency staircase, being considered by T.C. Cost £2,000. E. Minors, B.E.

Doncaster.—Walker & Thompson, FF.R.I.B.A., 7b, Hallgate, architects for church at Intake, for Ecclesiastical Commissioners.

Donegal.—515 cottages in county was outlined by Edward Gallen, chairman of Board of Health, at meeting of Donegal County Council.

Durham.—C.C. proposes reconstructing Raby Beck bridge near Staindrop to plans by Wm. J. Merrett, C.S., Shirehall, Durham.—Revised scheme in connection with road from Stanley to Causey, to cost £70,850, by C.C. has been approved.—County Works Committee approved scheme by W. J. Merrett, C.S., Shirehall, Durham, for diversion of stream in Lanchester village by means of reinforced concrete culvert, to cost £10,500.—Shirehall to be renovated at £800, for C.C.

Dunfermline.—Fifeshire C.C. have school scheme on hand in connection with special school, high school, primary school and the higher grade school.

*See also List of Contracts, Competitions, etc.

County Education Architect, County Offices, St. Catherine's-st., Cupar.

Elgin.—A. Morrison, architect, been authorised to prepare, in conjunction with a special sub-committee further housing scheme for New Elgin.

Exeter.—In order to relieve congestion at University College of South-West, it has been decided to build an extension of Lopes Hall in Pennsylvania at £21,849.

Flixton.—Parochial Committee recommended: 25 detached and semi-detached houses, Bold Bros., Ambleside-rd.

Fort William.—Corporation to erect at Ashburn 134 houses. A. Forrester, Burgh Architect.

Fraserburgh.—T.C. received intimation that Department of Health has approved sixth housing development at Gallowhill.

Gainsborough.—U.D.C. propose further 150 dwellings. S. Alger, E. and S.

Galway.—B.S. submitted to U.D.C. lay-out plans for 34 houses at Claddagh.

Glasgow.—Corporation propose erecting new R.C. school at Dijon-rd. W. McCaig, architect, 129, Bath-st., Glasgow.

Glasgow.—E.C. propose erecting school for Technical Training of the Blind at Possilpark. W. McCaig, Education Architect, Bath-st.

Grangetown.—North Riding of Yorkshire E.C. considering scheme for senior council school at £15,000.

Grays.—Housing Committee instructed S. to prepare lay-out plan for 20 non-parlour houses and 6 bungalows for aged persons.

Halifax.—Patons & Baldwins, Ltd., Clark Bridge Mills, propose additional yarn warehouse. Plans by Clement, Williams & Sons, A.R.I.B.A., architects, Permanent-chams., Commercial-st.

Halifax.—Vicar, Rev. H. G. Potter, and school managers of Holy Trinity propose alterations to Savile Hall, which is to be adapted as school for 400 scholars.

Hanley.—Wood & Goldstraw, architects, Town Hall, Tunstall, preparing plans for arcade of shops on frontage of 300 ft. in Lamb-st. and Stafford-st. for McIlroys Stores (Hanley), Ltd. Contracts not let.

Hatfield.—Tenders invited for pit-head baths and canteen at Hatfield Main Collieries. Plans by J. H. Forshaw, architect, Mines Department, London.

Havant and Waterloo.—U.D.C. approved: Hayling Island Ward, 7 houses, 3 garages, 3 additions, 1 covered way, 1 greenhouse at Bedhampton.

Horbury.—Richard Poppleton & Son, Ltd., Albert Mills, to erect warehouse adjoining mills. Plans by J. W. C. Atkinson, architect, Ivegate, Bradford.

Horsforth.—Council approved: 11 houses in two blocks, P. S. E. Briggs.

Huddersfield. — Catholic authorities of St. Patrick's acquired site on Leeds-rd. for church.—J. C. Derham, L.R.I.B.A., Empress-buildings, Church-st., Blackpool, preparing plans for greyhound racing track and club buildings for local syndicate.

Irvine.—Ayrshire C.C. to erect houses. W. Reid, County Architect, Wellington-sq., Ayr.

Kerry.—County Board of Health proposes to build 116 cottages.

Kildare.—County Board of Health to draw up a scheme for building 200 cottages and to invite tenders for work.

Kirkcaldy.—Fifeshire C.C. to carry out scheme of rebuilding and reconstruction at Sinclairtown infant school, and to convert Eastbank school for special pupils. County Education Architect, County Offices, St. Catherine's-st., Cupar.

Lanarkshire.—C.C. propose to reconstruct Motherwell Higher Grade Catholic school. J. Stewart, architect, Albert-st., Motherwell.

Largs.—Stellmacs, 57, Oswald-st., Glasgow, C.2, preparing plans for church for the United Free Church (continuing).

Leeds.—Kirk & Tomlinson, 63, Albion-st., Leeds, architects for premises in Kirkgate for A. Oberman.

Leeds.—Plans being prepared for reconstruction of 127-128, Lower Briggate, adjoining "Royal Hotel." Architects, Braithwiate & Jackman, Southparade.

Lincoln.—W. A. Watkins, F.R.I.B.A., St. Edmond's Chambers, Silver-st., preparing plans for church with accommodation for 500 persons for St. Giles'. Church Building Committee.

Liverpool.—Association of Sisters of Mercy propose additional wing to High School at Broughton Hall.—Rev. John Kieran proposes chapel at St. Edmund, Oxford-rd., Waterloo.

Liverpool.—Liverpool & London Laundry Co., Ltd., Luton-grove, propose garage and mess room buildings as additions to works. Plans by W. P. Horsburgh, F.R.I.B.A., D16, Exchange-buildings. Contract not placed.

London (Bermondsey).—L.C.C. recommend borrowing by B.C. of £2,075 for housing purposes within borough.

London (Clapham).—L.C.C. recommend £16,000 in respect of construction of the relief sewers in Clapham.

London (Deptford).—B.C. approved: Somerville Barnard Construction Co., Ltd., Archangel Works, Cold Blow-lane, alterations in Cold Blow-lane, adjoining Archangel Works; H. W. Childs, 61, Tressillian-rd., garage building, 61, Tressillian-rd., next to Crescent-way.

London (Finsbury).—B.C. considering following works: Public Library: internal decoration, £165, pointing of brickwork and reslating of roof, £270; Pine-st. centre: interior decoration, £130; painting of railings of all open spaces, £800; Mandeville Houses: internal decoration, £500; painting of iron railings, etc., Margaret-st., Mandeville Houses, Grimaldi House and Royley House, £200.

London (Stoke Newington).—B.C. approved: H. Seymour Couchman & Sons, on behalf of Ever Ready Co., Ltd., building, Carysfort-rd., between Nos. 51 and 53.

London (Wandsworth).—B.C. considering various schemes for unemployment relief.—Plans passed: N. Parr, alterations and additions, "Horse and Groom" b.h., Mitcham-rd., Tooting; Roy Gibson, Ltd., 8 houses, Roedean-cres., Templeton House estate, Putney; County of London Electric Supply Co., Ltd., electric transforming sub-station, rear of Woolworth's premises, 163, Balham High-rd.; E. Grout, 5 houses and garage, Springwell-rd., Streatham; B. G. Utting, 22 houses, Gracefield-gdns., Streatham; L. & W. Whitehead, alterations and additions, London County Council casual ward, Swaffield-rd., Springfield.

London (Wandsworth).—L.C.C. recommend £20,000 in respect of enlargement of Wandle sewer in Garratt-lane from Mapleton-rd. to low level sewer No. 2.

London (Woolwich).—L.C.C. recommend borrowing by B.C. of £120,640 for housing purposes within borough.—L.C.C. recommended size of halls in new elementary school to be erected on Middle-pk. estate be increased.—M.W.B. to spend £750 on storage accommodation at 96, Wellington-st.

Longriggend.—Lanarkshire C.C. intend to erect £365 verandah at County Sanatorium. John Stewart, architect, Albert-st., Motherwell.

Lupset (Leeds).—Alterations and additions to be carried out at Horbury-rd. W.M. Club.—B.E. has approved of amended plans for R.C. elementary school on housing estate.

Macclesfield.—J. Dakin, builder, Fountain-st., acquired site off Westminster-rd. for building developments.—Mark & Spencer, Ltd., bazaar merchants, 72, Baker-st., London, W.1, propose shops and premises in Mill-st. Plans by Norman, Jones & Rigby, F. & L.R.I.B.A., Williams' Deacons Bank-chambers, Lord-st., Southport.

Manchester.—Plans approved by Corporation:—A. Hartley & Son, Mauldeth-rd., sculleries and 82 houses, Wilmslow-rd., Fog-lane, Clothorn-rd., Anerley-rd. and Thurfield-rd., Didsbury; J. T. Jackson, 17, Omer-drive, Burnage, 10 houses, Barlow Moor-rd., and Hardcastle-av., Chorlton-cum-Hardy; S. & E. Clouth, 52, Manchester-rd., Chorlton-cum-Hardy, 9 houses, Russell-rd. and Victoria-rd., Withington.

Morecambe.—Austin & Paley, AA.R.I.B.A., 24, Castle Hill, Lancaster, architects for Church of St. Christopher on land facing Promenade, Torrisholme, for Rev. H. J. Winrow. Contracts not let.

Meath.—County Board of Health to proceed with building 760 labourers' cottages.

Monaghan.—County Board of Health to proceed with erection of 200 houses.

Newcastle-on-Tyne.—E.C. seeking sanction to borrow £465 to provide temporary school buildings at Walker.—Pans passed for lay-out of land in Scrogg-rd. and Exeter-st., for W. Leach, Coutte-rd., Walkergate, Newcastle. Plans by W. Riddle, 53, Denham-ter., Wallsend.—36 houses to be built in Kingsway and Powburn-gdns. by Kirk & Dickinson, builders, Regent-ter., New Bridge-st. Architects, Watson & Scott, 16, Pilgrim-st.—Storey & Reid, builders, 5, Glendale-av., Monkseaton, propose 42 houses Debdon Gardens site and other estates. Marshall & Tweedy, 129, Pilgrim-st., Newcastle, architects.

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EST. 1858

Newcastle-on-Tyne. — Housing Committee were advised that M.H. had sanctioned following sections of housing and rehousing schemes: 150 houses Scotswood Munition Cottages site; 194 houses, Ferguson's-lane site; 200 houses and 94 two-roomed bungalows for aged folk, Stamfordham-rd. estate.

New Ross.—U.D.C. to provide 50 houses.

North Tipperary.—Board of Health decided to proceed at once with 350 labourers' cottages at £70,000.

Northumberland.—C.C. proposes constructing approach road to new bridge at Stannington. A. Cheyne, C.S., Moothall, Newcastle.

Northwich.—County E.C. propose extensions to Verdin Technical College and Art School. County Architect, F. Anstead Browne, F.R.I.B.A., County Hall, Chester.

Norton.—R.D.C. proposes 12 additional houses.

Orpington.—P.C. recommended Bromley R.D.C. approve following plans: 6 pairs of houses, Felstead-rd., Turner & Meakin; 16 houses, Lancing-rd., S. Knox.

Penrith.—Cumberland E.C. decided to instruct Governors of Penrith Grammar School to obtain tenders for laboratory at £3,600. The architect is Mr. R. Morton Rigg, L.R.I.B.A., Corney-sq., Penrith, and not Mr. J. Forster, has incorrectly stated in our issue of November 4.

Preston.—T.C. approved:—H. Heaton & Son, 8 houses, Shelley-rd., J. E. Cook; Shell-Mex & B.P., Ltd., extensions, Dock-land; T. Croft & Sons, Ltd., 18 houses, Clifton-grove.

Rainhill.—Richard Owens & Son, 3, Crosshall-st., Liverpool, architects, for a house for medical officer at County Mental Hospital.

Reigate.—Plans reported to have been approved by Building Sub-Committee included designs for new hall, shops and flats in London-rd., Redhill, on behalf of Trustees of Redhill Methodist Church.

Rochdale.—P.A.C. propose pavilion at Springfield Sanatorium.

Rugby.—Parochial Council of Holy Trinity Church (rector, Ven. Archdeacon H. W. Hunkin) proposing to complete chancel screen in church at £500.

Rushden.—U.D.C. approved: Alterations and additions to "Oakley Inn," C. Praed & Co., Ltd.

Scarborough.—R.D.C. to build 32 houses, to plans by S.

Sedgefield.—R.D.C. has under consideration proposal to erect convenience at Fishburn. J. R. Stones, S.

South Shields.—T.C. has under consideration scheme for additional accommodation at Maternity and Child Welfare clinic in Stanhope-rd., at £200. J. P. Watson, B.S.

South Shields.—Trustees of the Laygate P.M. Church propose institute adjoining chapel, Laygate-st.—L.N.E.R. proposes building bungalows Wenlock-rd. Plans by railway company's architect. C. H. E. Bridgen.—R. Brown & Co., builders, Lord-st., contractors for 9 bungalows at Cleadon. Plans by T. A. Page & Son, 67, King-st.

Stevenage.—U.D.C. proposing houses in Ellis-av. Tenders to be invited.

Stoke-on-Trent.—Reconstruction of North Stafford Hotel to be carried out for L.M. & S. Railway Co., Ltd.

Stourbridge.—Additions to be carried out to factory premises of Westwood, Dawes & Co., Enville-st.

Sunderland.—Rev. J. O'Dwyer, pp. St. Joseph's Church, King's-rd., Millfield, proposing infants' junior school off King's-ter. Plans by A. Harrison, 69 to 70, High-st., Stockton-on-Tees.

Tadcaster.—J. Moverley, builder, Bromfield-ter., to erect 20 houses off York-ter.

Thurles.—U.D.C. building 38 houses at Derheen.

Tobermory.—Plans been prepared by John Allan & Sons, 247, Bath-st., Glasgow, for reconstruction Western Isles hotel. Laird and Napier, architects, 219, St. Vincent-st., Glasgow.

Urmston.—E. J. Slater, Ltd., building contractors, 111, King-st., Stretford, acquired land off Stretford-rd. for building developments.

Wakefield.—Corporation propose extensions to public lavatory in Cross-sq.

Wallasey.—Works Committee proposing public conveniences on Promenade at New Brighton.—T.C. approved plans for dispensary and health clinic in Mill-lane.

Wellingborough. — U.D.C. approved: Offices, Market-st., Northampton Town and County Building Society; shop extension, Midland-rd., Wellingborough Co-operative Society; 6 houses, Croyland-rd., Hacksley Bros.

West Hartlepool.—Plans approved by T.C. for 107 houses. F. Craven, builder, 42, Stockton-st.

West Kirby.—Canon T. M. Marrs, of St. Agnes Church, acquired land for extensions of buildings.

Weymouth.—R.D.C. approved: 14 bungalows, Portland-rd., Wyke Regis, Parkmead-rd. estate, for Portwey Estates, Ltd.

Whitefield.—Lancashire County E.C. approved purchase of site Lancaster-sq., Besses' o' th' Barns, for junior council school. County Architect, S. Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Whitefield.—N. Hartley Hacking, architect, 5, Blackfriars-st., Manchester, preparing plans for rebuilding of "Welcombe Inn" public-house, Bury Old-rd., Prestwich, near Manchester, for J. Holt, brewers, Derby Brewery, Cheetham, Manchester.

Whitehaven.—T.C. are to invite tenders for 120 houses on Woodhouse site. B.S. is to submit estimate also.

Wicklow.—County Board of Health is to build 61 cottages in Rathdrum and 12 in Shillelagh rural districts.

Woodford.—Essex C.C. recommended £515 for improvements to Lincoln House.

Wortley.—R.D.C. to proceed to obtain sanction for building of houses for aged people.

Wrangle.—Parochial Council of Parish Church propose restoration of roof at £700.

Yatton.—Long Ashton R.D.C. are considering erection of 20 houses.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by enquiry

PRINCIPAL CHANGES OF THE WEEK.—Attention is drawn to increases in the prices of some Soft Wood, Deals, battens and matchings (best) are affected. Deal, 4 x 11, is an exception, decreasing by £1 per standard.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
"Phorpres"	2 11 3	Flettons, B'ilin'se	3 6 3
Flettons at King's Cross	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 13 3	Do. Bullnose	9 15 0
		Blue Wire Cuts	7 5 0

White Midhurst Facing Bricks (delivered London site) 5 0 0

"Phorpres" Whites (do.) 3 17 3

"Phorpres" Rustic Facing Bricks, delivered Central London ..... per 1,000 3 12 3

Best Stourbridge Fire Brick :—
2½ in. 3 11 0 | 3 in. 10 3 0

GLAZED BRICKS—

	£ s. d.		£ s. d.
Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
		One side and two Ends	30 10 0
Headers	20 10 0	Two Sides and one End	31 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Splays and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE PARTITION SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in. per yd. super	2 9
2½ in. "	4	4 in. " "	3 6

	s. d.	
Thames Ballast	8 0	per yd.
Pit Sand	11 0	" "
Thames Sand	11 0	" "
Best Washed Sand	11 6	" "
½ in. Shingle for Ferro-Concrete	8 6	" "
¾ in.	11 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	8 0	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

CEMENT.

Best Portland Cement. British Standard Specification. Test	
In Jute Sacks (11 to ton)	£2 4 9
In Paper Bags (20 to ton)	2 6 0

Colorcrete No. 1 & 2 Coloured Rapid Hardening Portland Cement in 1 cwt. paper bags free (non-returnable) 20/- per ton above Portland Cement Price.

"Snowcrete" White Portland Cement in 1 cwt. paper bags free (non-returnable) 190/- per ton.

Alongside Vauxhall in 80 Ton Lots

Jute Sacks (11 to ton)	1 17 9
Paper Bags (20 to ton)	1 19 0
Ferrocrete per ton extra on above	0 7 6
Vitrocrete per ton extra on above	0 7 6

NOTE.—Jute Sacks are charged 1s. 6d. each and credited 1s. 6d. each nett if returned in good condition within three months, carriage paid.

Super Cement (Waterproof) Paper Bags	3 16 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0

PLASTER.

Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	4 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE. — Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE.—RANDOM BLOCK—	
Free on rail at Seaton Station, per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft., cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cub.	4 4½
Do. do. delivered on road waggons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
CHILMARK—RANDOM BLOCK—	
At Nine Elms, per ft. cube	3 11
HOPTON-WOOD STONE—	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb.	14 0
Sawn two sides	22 6
Sawn three or four sides	27 6

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London.

	£ s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto "	1 3½

HARD YORK—
Delivered at any Goods Station, London.

	£ s. d.
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	3 1½
3 in. ditto ditto "	2 6
2 in. self-faced random flags Per yd. super	3 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills 10s. 0d.

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£23 10	3 × 6	£17 [illegible]
4 × 9	22 10	3 × 11	19 10
4 × 8	21 0	2 × 11	19 10
4 × 7	19 0	3 × 9	19 10
3 × 8	18 0	2½ × 9	19 10
3 × 7	18 0	3 × 4½	17 10
2½ × 7	18 0	3 × 4	17 10

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	16/-	1¼	25/-
¾	17/-	1½	27/6
1	20/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1¼	26/-
1½	27/6

MATCHING (BEST).

Inches.	per sq
¾	16/-
¾	18/6
1	22 6

	s. d.
ins. BATTENS.	
¾×2 .....per 100 ft	2 6
SAWN LATHS	2 3
Per bundle	

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	£4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality, slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	25 0 0	18 by 10	15 12 6
22 by 12	25 0 0	18 by 9	13 15 0
22 by 11	22 10 0	16 by 10	13 10 0
20 by 12	22 0 0	16 by 8	10 7 6
20 by 10	19 7 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£4 7 0
ditto hand-made ditto	5 0 0
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£11 0 0
Plain Compound Girders	12 0 0
" Stanchions	15 0 0
In Roof Work	18 0 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ½ in.	10 15 0
⅜ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward. If sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅛ in. to 6in. %	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅛in. to 6in. %	Standard Fittings Sizes ⅛in. to 6in. %	Standard Flanges Sizes ⅛in. to 6in. %
Gas	65	52½	57½	70
Water	61½	48½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	2½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Price ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles	Stop Ends.
3 in.	11d.	1/5	5d.
3½ in.	11½d.	1/7	5d.
4 in.	1/0½	1/9	5d.
4½ in.	1/1½	2/-	6d.
5 in.	1/5	2/2	8d.

O.G. GUTTERS.

3 in.	1/1	1/11	5d.
3½ in.	1/2	1/11	5d.
4 in.	1/2½	2/-	5d.
4½ in.	1/4	2/4	6d.
5 in.	1/6½	2/8	8d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches. stock angles.
2 in.	1/3½	1/9	2/7
2½ in.	1/4½	2/-	3/1
3 in.	1/8½	2/6	3/9
3½ in.	2/1½	3/-	4/4
4 in.	2/5	3/7	5 3

Connections—50 per cent. off above prices.
Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe, stock angles.	Bends, stock angles.	Branches. stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	1 11	1 6½	1 10½
2½ in. "	2 3½	1 8½	2 4
3 in. "	2 4½	1 10½	2 9½
3½ in. "	2 7	2 4	3 3
4 in. "	2 11	2 7½	3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe, stock angles	Bends, stock angles	Branches stock angles
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	3 4	4 3	6 3
4 in. " 1 1 20 cwt. qr. lbs.	4 7	5 2	8 10
5 in. " 1 2 22	6 0	9 0	14 3
6 in. " 2 0 6	6 6	10 11	18 1

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	10 10 0	to	11 0 0
Staffordshire Crown Bars—Good merchant quality	10 15 0	to	11 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 0 0	...	9 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
" Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—			
Ordinary sizes, to 20 g.	11 0 0	...	11 10 0
" " " 24 g.	12 0 0	...	13 0 0
" " " 26 g.	14 0 0	...	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	13 10 0	...	14 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	17 10 0	...	18 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 0 0	...	14 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0	...	17 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	18 0 0	...	19 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	20 0 0	...	22 0 0
Best Soft Steel Sheets, 26 g.	21 10 0	...	23 0 0
Cut Nails, 3 in. to 6 in.	15 0 0	...	16 0 0
(Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	0 9
Strong sheet "	0 10
Thin "	0 11
Copper nails "	1 0
Copper wire "	0 11

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. **Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.**

PRICES CURRENT OF MATERIALS—(*contd.*).

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/-	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	11/-	17/-	29/-	36/-	63/-	per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
35/-	56/-	98/-	162/-	228/-	per doz.

DRAWN LEAD P. & S. TRAPS WITH GRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ...	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps ...	35/-	45/-	66/-	126/-	,,

TIN.—English Ingots, 1/8 per lb. SOLDER.—Plumber's 9d., Tinmen's 10d., Blowpipe 11d. per lb.

LEAD, &c.

(Delivered in London.)	£	s	d
LEAD—Sheet, English, 4 lb. and up	21	10	0
Pipe in coils	22	0	0
Soil pipe	25	0	0
Compo pipe	25	10	0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes 5s. cwt. extra.

Old lead, ex London area, at Mills .....per ton £11 10 0

PAINTS, &c.

		£	s.	d.
Raw Linseed Oil, in pipes	per gallon	0	1	9
,, ,, ,, in barrels ...	,, ...	0	1	11
,, ,, ,, in drums ...	,, ...	0	2	2
Boiled ,, ,, in barrels ...	,, ...	0	2	3
,, ,, ,, in drums	,, ...	0	2	5
Turpentine, in barrels	,, ...	0	5	4
,, in drums (10 galls.)	,, ...	0	5	6
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.) Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.		47	0	0

GENUINE WHITE LEAD PAINT.

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots	£	s.	d.
per ton delivered	65	0	0
Red Lead, Dry (packages extra) ... per ton	34	0	0
Best Linseed Oil Putty ..... per cwt.	0	13	6
Size. XD quality .... fkn.	0	3	0

VARNISHES, &c.

		Per gallon
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal.....	ditto	0 18 0
Pale Copal.....	ditto	1 0 0
Pale Opal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 0
Fine Copal Flatting.....	ditto	1 0 0
Hard Drying Oak	ditto	0 18 6
Fine Hard Drying Oak	ditto	0 19 6
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 12 6
Best ditto	ditto	1 2 6
Best Japan Gold Size.....		0 12 0
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 6
Brunswick Black		0 7 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebene		0 9 0
Culrase Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths ... 2¾d.	32 oz. fourths	7½d.
15 ,, thirds ... 3¾d.	32 ,, thirds	9½d.
21 ,, fourths ... 3¾d.	Obscured Sheet, 15 oz. ...	3¾d.
21 ,, thirds ... 4½d.	,, ,, 21 oz. ...	4½d.
26 ,, fourths ...4¾d.	Fluted, 15 oz. 6½d., 21 oz.	9d.
26 ,, thirds ... 7½d.	Em'lld,15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES. Per ft.

Rolled plate ⅛ in.	4½d.
Rough rolled ¼ in.	5¾d.
Rough rolled ½ in.....	5¾d.
Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4¾d.
White Rolled Cathedral	4¾d.
Tinted do.	6¾d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot s. d
Clear sheet—not exceeding 1 foot	1 0
Do. do. 2 feet.....	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. not exceeding 2 feet.....	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
/15 in Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2 6

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

Burntisland.—HOUSING.—The Town Council invites further tenders for the erection of 36 houses at Rossend.

Edinburgh.—BUILDING.—Warrant for the building of the new public wash-house at Murdoch Terrace, Fountain Bridge, was amongst those granted by Edinburgh Dean of Guild Court.

The following were included in the applications granted :—George Rutherford Black.—Four flatted villas at Warriston-gardens; C. H. Jones.— 78 lock-ups at Falcon-avenue; Roman Catholic Church in arch-diocese of St. Andrew's and Edinburgh.—Extensions and alterations at Marionville-road; A. Thain and Son.—Five shops at St. John's-road, Corstorphine; and the City.—Public wash-house at Murdoch-terrace, Fountainbridge.

Glasgow.—BUILDING.—The Dean of Guild Court has passed plans submitted by the Corporation of Glasgow Housing Department to build dwelling-houses in various parts of the city :—At Queen Victoria-drive, 563 of three apartments and 167 of four apartments; Knightswood, No. 1 extension—50 of three apartments, 17 of four apartments, and 3 of five apartments; Shieldhall-road—92 of three apartments and 12 of four apartments; Edinburgh-road—22 of three apartments and 6 of four apartments; and Belmore-road—96 of three apartments and 36 of four apartments.

Permission to build about 1,400 dwelling-houses at Cardonald was granted to Glasgow Estates Development Co. (Ltd.). An alteration in the city will be seen in Gordon-street, permission having been granted to the L.M.S. Railway Co. to convert the present lost luggage office of the Central Station into shops.

The other linings passed included :—British Linen Bank, branch bank at the junction of Paisley-road West and Crookston-road.

Motherwell.—HOUSING.—The Dean of Guild Court has passed plans in the name of the Town Council for the erection in Mill-road, Motherwell, of 164 dwelling-houses. The scheme is in connection with the clearances in Milton-street. The cost of the scheme is £50,000. The same Court passed plans by Mr. Andrew Rossi, Dalmarnock-road, Glasgow, for a café in Hamilton-road at an estimated cost of £300

INTEREST ON MUNICIPAL LOANS

HIS MAJESTY'S TREASURY have directed a reduction to 4 per cent. in the rate of interest to be charged on loans, secured on local rates, made on and after October 11, 1932, from the Local Loans Fund to Local Authorities for any purposes of the Housing Acts, the Housing (Rural Workers) Acts, 1926 and 1931, and the Small Dwellings Acquisition Acts, 1899 to 1923.

As regards the rate of interest on advances by local authorities, changes have also been made as follow :—

(*a*) *Small Dwellings Acquisition Acts.*—By the Ministry of Health (Rate of Interest) Amendment Order (No. 3), 1932, dated November 8, 1932 (S.R. and O., 1932, No. 909), the Minister of Health has now fixed 4¼ per cent. as the rate of interest at which local authorities after the date of the Order may make advances under the Small Dwellings Acquisition Acts, although the Minister will be prepared to give consideration to an application for fixing some rate other than 4¼ per cent. in respect of any authority who are of opinion that having regard to the terms on which they can raise loans, or for other reasons, a different rate is required in their case.

(*b*) *The Housing* (*Rural Workers*) *Acts*, 1926 *and* 1931.—The Minister has also, with the approval of the Treasury, prescribed a decrease in the rate of interest from 5 to 4¼ per cent. for purposes for which a rate of interest is required to be prescribed under Section 2 (5) (a) of the Act of 1926. So far as the other purposes for which a rate of interest is required to be prescribed under the Acts are concerned, the Minister does not consider that any alteration in the rate at present prescribed, viz., 5 per cent. is necessary.

Copies of the Circular and the Order may be obtained, price 1d. each, from H.M. Stationery Offices.

Import Duties Advisory Committee.

The Import Duties Advisory Committee announce that, following upon numerous applications for adjustment of duties, they are considering the rates of duty on all classes and descriptions of wood and timber and manufactures thereof. Consideration will extend to timber in the log, timber sawn, planed, turned, or otherwise manufactured, doors, joinery, turnery and other manufactures of wood and timber other than furniture. Any representations which interested parties desire to make should be addressed in writing to the Secretary, Import Duties Advisory Committee, Caxton House (West Block), Tothill-street, S.W.1, not later than November 24. The Committee have decided not to make any recommendation in respect of the application previously advertised for the imposition of increased duties on furniture and parts thereof made wholly or partly of bentwood.

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. The bricklayers in the Glasgow district have ½d. per hour extra. It should be noted that plasterers and painters who are not parties to the Scottish N.J.C. pay higher wages of 1d. and ½d. per hour extra respectively. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classifications ...	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3
Labourers	1/2	1/1½	1/1¼	1/0¾	1/0½	1/-	/11¾	/11¼

Aberdeen	A	Dundee	A	Hawick	A²	Perth	A
Airdrie	A	Dunfermline	A	Helensburgh	A	Perthshire	A
Alexandria	A	Dunoon	A	Inverness	B	Peterhead	A
Arbroath	A²	East Lothian	A	Kilmarnock	A	Renfrewshire	A
Ayrshire	A	Edinburgh	A	Kincardineshire	A²	Rothesay	A
Bathgate	A	Falkirk	A	Kinross-shire	A	Roxburghshire	A²
Bo'ness	A	Forfarshire	A²	Kirkcaldy	A	St. Andrews	A
Broughty Ferry	A	Fort William	A	Lanarkshire	A	Selkirkshire	A
Clackmannanshire	A	Galashiels	A²	Leith	A	Stirling	A
Coatbridge	A	Glasgow	A	Midlothian	A	Stirlingshire, West	A²
Dumbartonshire	A	Greenock	A	Motherwell	A	West Lothian	A
Dumfries	A²	Hamilton	A	Peeblesshire	A²	Wishaw	A
Dumfriesshire	A²						

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 873.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	27	0
Add if in underpinning in short lengths	„ „	6	0
Add if in floors 6 in. thick	„ „	2	6
Add if in beams	„ „	3	0
Add if aggregate 1 : 2 : 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	0	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	„ „	9	6
Three-quarter-inch on flats in two thicknesses	„ „	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	0

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	„ „	22	0
Bath stone and all labour fixed	„ „	10	6
Beer stone and all labour fixed	„ „	15	0
Portland stone fixed	„ „	20	0
Chilmark stone fixed complete	„ „	17	6

SLATER.

Welsh 16in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20in. × 10 in. Do. Do.	„	80	9
Do. 24in. × 12in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	4	3
Do. joists	„ „	4	9
Do. roofs, floors and partitions	„ „	5	3
Do. trusses	„ „	7	9

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	33/6	38/–	43/–	70/–

Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	0	9
Centre for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	42/6	50/–	57/6
Do. tongued and grooved	„	—	47/–	56/–	64/–
Do. matchings	„	44/–	49/–	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/–	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size		3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	„	2/4	2/6	2/9
Two-panel moulded both sides	„	2/6	2/9	2/11
Four-panel Do. Do.	„	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	„	1/4	1/6	1/9
Add if cross-tongued	„	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/–	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1¼ in	per ft. run	0	9
Mahogany handrail, average, 3 in. x 3 in.	„ „	6	0
Add if ramped	„ „	12	0
Add if wreathed	„ „	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/–
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/–
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	3
Plain compound girders	„	18	0
Do. stanchions	„	20	9
In roofwork	„	26	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/–
Ogee Do. Do.	„	1/6	1/9	2/3	2/9
Rain-water pipes with ears	„	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	„	1/6	1/10	2/9	3/3
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. Do. flats	„	39	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	„ „	1	3
Copper nailing	„ „	0	3

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	1/1	1/7	1/10	3/–	3/6	—
Do. service „	1/6	2/–	2/5	3/6	—	—
Do. soil „	—	—	—	—	—	6/–
Bends in lead pipe each	—	—	—	—	3/–	6/6
Soldered stop ends „	1/–	1/4	1/9	2/6	3/2	—
Red lead joints „	11d.	1/–	1/3	1/11	2/4	4/10
Wiped soldered joints „	2/6	3/–	3/6	4/4	5/6	7/9
Lead traps and cleaning screws „	—	—	—	12/7	17/6	—
Bib cocks and joints „	6/4	9/7	15/4	41/–	—	—
Stop cocks and joints „	15/4	17/2	25/8	64/–	—	—

PLASTERER.

			s.	d.
Render, float and set in lime and hair		per yard sup.	2	3
Do. Do. Sirapite		„ „	2	6
Do. Do. Keen's		„ „	3	6
Add saw lathing		„ „	1	7
Add metal lathing		„ „	2	6
(Not including hangers or runners, etc., for suspended ceilings.)				
Portland cement screed		„ „	2	2
Do. plain face		„ „	3	3
Mouldings in plaster		per 1 girth	0	1
One-and-a-half granolithic pavings		per yard sup.	5	3½

GLAZIER.

21-oz. sheet plain		per foot sup.	0	6½
26-oz. Do.		„ „	0	7½
Obscured sheet		„ „	0	8
⅛-in. rolled plate		„ „	0	8
¼-in. rough rolled or cast plate		„ „	0	7½
¼-in. wired cast plate		„ „	1	1

PAINTER.

			s.	d.
Preparing and distempering, 2 coats		per yard sup.	0	9
Knotting and priming		„ „	0	7
Plain painting, 1 coat		„ „	0	9
Do. 2 coats		„ „	1	2
Do. 3 coats		„ „	1	9
Do. 4 coats		„ „	2	4
Graining		„ „	2	3
Varnishing twice		„ „	1	9
Sizing		„ „	0	3
Flatting		„ „	0	7
Enamel		„ „	1	1
Wax polishing		per foot sup.	0	6
French polishing		„ „	1	2
Preparing for and hanging paper		per piece, 2/– to 4/–		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW CINEMAS

Brighton.—Messrs. E. A. Stone & Partners, 20, Berkeley-street, W.1, have been appointed architects for the proposed "Astoria" cinema at Gloucester-place and Blenheim-place, Brighton, to seat 2,000, for Astoria (Brighton), Ltd. The building work will be carried out by Messrs. Griggs & Son, 100, Victoria-street, S.W. The consulting engineer is Major C. H. Bell, 60, Wardour-street, W.1.

Clacton-on-Sea.—The lowest tenders submitted for the erection of the proposed cinema, shops and flats at the junction of Pier-avenue and Old-road have been sent in by Messrs. John Willmott and Sons, 80, Walsworth-road, Hitchin, Herts, at £16,055, and Messrs. Evans and Nunn, Ltd., 44, London-road, Clacton-on-Sea, at £16,099. The plans, which show a cinema to seat about 1,850 persons, have been prepared by Mr. G. H. B. Gould, A.R.I.B.A., Hurlingham Chambers, Station-road, Clacton-on-Sea.

Devizes.—A contract for rebuilding the Palace Cinema after fire for Mr. A. A. Pilkington (Messrs. Satchwell and Roberts, LL.R.I.B.A., 6, New-street, Birmingham, architects) has been placed with Messrs. W. E. Chivers and Sons, Ltd., of Devizes. Quantities were prepared by Mr. Reuben Holbrow, 104, Colmore-row, Birmingham.

Herne Hill.—Plans for the reconstruction of the Cinema Grand, 222, Railton-road, S.E., have now been approved by the L.C.C. Entertainments Committee. Work will be commenced shortly, under the direction of the architect, Mr. George Coles, F.R.I.B.A., 40, Craven-street, Strand, W.C.

Leytonstone.—Extensive alterations are to be carried out to the Academy Cinema, Leytonstone. Amongst other work the façade and entrance hall are being entirely rebuilt, whilst the main hall is being extended to hold some 700 additional seats. Mr. J. Aldridge, L.R.I.B.A., 7, Lonsdale-gardens, Ilford, Essex, is the architect for the work. Messrs. Hammond & Miles, Ltd., Scrafton-road Works, Leytonstone, are the builders.

Liverpool.—A contract is expected to be let early in the new year for the erection of the "Paramount" cinema on the Stadium site, Pudsey-street. Messrs. Verity & Beverley, 7, Sackville-street, W.1, are the architects.

Manchester.—In connection with the rebuilding of the Capitol Cinema on School-lane, Didsbury, for Mr. R. C. Roy, 27, King-street West, Manchester, quantities are now issued and tenders are invited. The architect is Mr. Peter Cummings, A.R.I.B.A., 27, King-street West, Manchester. The new building is to seat 1,900, and to cost £50,000.

Plymouth.—Preliminary plans have been submitted to the authorities for a scheme for the erection of a cinema in Exeter-road, to seat over 1,000 persons. Associated with the proposal are Messrs. Mexborough and Co., builders, of 42, Woolster-road, Plymouth.

Preston.—A contract for the cinema to be erected to seat 900 persons on New Hall-lane, for the Plaza Cinema (Preston), Ltd., 9, Chapel-street, Preston, has been placed with Messrs. Caton and Duckworth, building contractors, William Henry-street, Blackburn.. Work is to start at once. Mr. G. E. Tonge, F.R.I.B.A., Lord-street, Southport, is the architect.

Romford.—Plans are being prepared for a super cinema in Collier Row-lane. The architect is Mr. A. G. Millns, 120, North-street, Romford. Tenders are not yet invited.

Stockton-on-Tees.—The Hippodrome Cinema, Dovecot-street, Stockton-on-Tees, Durham, has been gutted by fire. North Eastern Entertainments, Ltd., proprietors, are stated to intend to start rebuilding at an early date.

Worthing.—It is stated that plans have been prepared by Mr. H. Weston, 6, Finsbury-square, E.C.2, for the erection of a cinema to seat 2,000 at Rowlands-road and Eriswell-road. The plans are now before the Town Council. The building contract will shortly be let.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office.*

Arbroath.—Houses on the Union-street site, for the T.C. Messrs. Carver & Symon, architects, 11, Boothwick Bridge :—
Excavation, brick and mason — *Ramsay & Gordon, Arbroath.
Joinery, carpentry and ironmongery — *J. & R. W. Sewwright, The Wright Works, Arbroath.
Glazier—*Duncan J. Scott, Brothwick Bridge, Arbroath.
Slating and roughcasting—*J. Cuthill, Haymarket-street, Arbroath.
Electrical installation—*J. Beveridge, Milngavie, Dumbarton.
Painter—*R. M. Mickieson & Son, The Drysalteries, Arbroath.
Plaster—*D. Jamieson & Sons, Cement Works, Arbroath.
Plumber—*Herron & Colville, 56, Keptie-street, Arbroath.

Athlone.—Technical school, for the E.C.:—
*M. Duffy & Son £2,380

Athy.—93 houses, for the U.D.C.:—
56 houses—*D. & J. Karberry £13,540 0
20 houses—*Duggan Bros. 4,488 10
17 houses—*Dwyer & Foggarty 3,604 0

Audenshaw.—22 houses on Sidmouth-street, for Mr. A. J. Franks, "Ferndown," Slate-lane:—
*A. J. Franks, Audenshaw.

Bangor.—New central school, for the C.C. Mr. Westbury Lloyd Jones, F.R.I.B.A., County Architect, 14, Market-street, Caernarvon:—
†G. & J. P. Gregory, Caernarvon £7,769

Barnard Castle.—Alterations to a pavilion at the poor law institution for conversion into a reception home, for the Durham C.C. Mr. F. Willey, County Architect, 34, Old Elvet, Durham:—
*H. Waine, Barnard Castle £272

Birmingham.—Extensions to the bazaar premises of Messrs. Marks & Spencer, Ltd., High-street and Carr's-lane:—
*Bovis, Ltd., Upper Berkeley-street, London, W.1.

Birmingham.—Reconstruction of the factory premises of Messrs. Hall & Parks, Ltd., Loveday-street:—
*W. J. Whittall, Son, Ltd., Lancaster-street, Birmingham.

Bourne.—Public conveniences in South-street, for the U.D.C. Mr. J. S. Fisher, architect, Surveyor's office:—
*J. Wright & Co., Meadowgate, Bourne £460

Bradford.—Extensions to the Congregational Church, Buttershaw, for the Trustees of the Congregational Union. Mr. T. L. Dixon, architect, Stanwix House, Halifax-road, Buttershaw:—
Mason—*L. & H. Morrell.
Carpenter and joiner—*N. Kellett & Co.
Plumber and electrician—*F. Robinson
Heating—*C. Howroyd.
Plasterer and concretor—*F. Mudd & Son
Slater—*E. Hillam.
Painter—*W. Barraclough.
(All of Bradford.)
Estimated cost. £1,200

Bungay.—20 houses in Bungay, for the U.D.C. Mr. F. J. Mean, architect, Beccles:—
*W. Tickner, Catton-groove Estate, Norwich £5,840

Cambridge.—Two blocks of service flats off Grange-road, for Strand & Savoy Proerties, Ltd., 61a, Pall Mall, London, S.W.1. Messrs. T. P. Bennett & Son, F.R.I.B.A., architects, 41, Bedford-row, W.C.1:—
General Builders—*Rice & Son, Ltd.
Steelwork—*Matthew T. Shaw & Co., Ltd.
Heating engineer—*G. N. Haden & Sons, Ltd.
Floors—*Caxton Floors, Ltd.
(All of London.)

Cardiff.—Warehouse, flour mills and provender mills at Roath Docks, for Messrs. Spillers, Ltd.:—
*Henry Willcock & Co., Ltd., Wolverhampton.

Cardiff.—Extensions to bakery, for Messrs. Merrett's, Newport-road. Messrs. Henry Bugden & Co., architects, 95, St. Mary-street:—
*Knox & Wells, Ltd., Cardiff.

Carlisle.—Eight houses, for the R.D.C. Mr. F. Barker, surveyor, 5, Victoria-place:—
*J. L. Watson, Brampton, Cumberland £2,343

Carnwath.—Electric installation of 40 new houses, for the Lanarkshire C.C.:—
*A. Robertson, 248, Woodlands-road, Charing Cross, Glasgow £243 8

Castleford.—Sanitary conversions at Smawthorne-lane, Roundhill-road, Ambler-street, Richmond-street and Hugh-street, for U.D.C.:—
*L. J. Rodger & Sons, Ltd. £1,798

Chesterfield.—Additions for completion of the north wing of the Chesterfield Technical College, for the Derbyshire C.C. Mr. G. H. Widdows, F.R.I.B.A., County Architect, County Offices, St. Mary's-gate, Derby:—
*Evans Bros. & Co., Alfreton.

Coleshill.—Extensions to Arley Miners' welfare hall, Ransome-road, for the Miners' Welfare Building Committee. Mr. A. L. Horsburgh, F.R.I.B.A., architect, Gt. Western-buildings, Livery-street, Birmingham:—
*W. Matthews, Fillongley, near Coventry.

Crowle.—20 houses, for the U.D.C.:—
*Moore, Sandtoft.

Derby.—Alterations to bank premises in Irongate, for Messrs. Lloyds Bank, Ltd., 71, Lombard-street, London, E.C.3. Mr. J. L. Harpur, L.R.I.B.A., architect:—
*J. Hodges & Son, Burton-on-Trent.

Desborough.—Paper board mill in Rushden-road, for Messrs. Rigid Containers, Ltd. Col. J. Brown, D.S.O., F.R.I.B.A., architect. Messrs. John Brown & Henson, 83, St. Giles-street, Northampton:—
*W. Richards & Son, Leicester.

Didcot.—30 houses, for the Wallingford R.D.C. Mr. F. H. Floyd, F.R.I.B.A., architect, St. Nicholas House, West Mills, Newbury:—
*Francis Bros., Filchrist, Reading ... £10,663
(Subject to approval of M.H.)

Durham.—Sundry works, for the C.C.:—
Replacing heating apparatus at Sunderland poor law institution (hospital block):—
*T. Vaux & Son, Sunderland £219
Pointing boundary walls at the Houghton Institution:—
*Dixon, Elliott & Sons, Durham £209
Pointing, new floors to kitchen and scullery at Stockton Institution:—
*J. S. Earnshaw, Stockton £157
External painting at the Earls House Sanatorium—
*Smith & Co. £183

Evesham.—Additions and enlargement of infirmary and provision of accommodation for nurses to the Poor Law Institution, for the Worcestershire C.C.—

W. H. Mowd, Cheltenham	£11,133 11 8
J. H. Smith, Kidderminster	9,956 0 0
J. Taylor & Sons, Evesham	9,946 17 11
E. Crowder, Birmingham	9,927 0 0
Wheeler & Mansell, Ltd., Evesham	9,907 14 4
J. C. Meades, Ltd., Evesham	9,850 0 0
A. H. Guest, Ltd., Stourbridge	9,510 0 0
J. & A. Brazier, Ltd., Bromsgrove	9,505 0 0
H. Thomas & Sons, Birmingham	9,411 0 0
W. Jackson, Ltd., Langley Green	9,356 0 0
W. Willetts & Sons, Kingswinford, Dudley	9,318 19 6
Meredith & Hingley, Cradley, Staffs.	9,292 3 6
C. Steward, Broadway	9,208 19 5
C. G. Huins & Sons, Redditch	9,170 0 0
Housing, Ltd., Blackheath	9,148 0 0
A. C. Billings & Sons, Ltd., Cheltenham	9,083 0 0
S. F. Swift & Sons, Ltd., Birmingham	8,936 0 0
Espley & Co., Ltd., Evesham	8,928 0 0
T. Bates & Son, Ltd., Coventry	8,855 0 0
W. A. Cox, Ltd., Evesham	8,799 0 0
Parsons & Morrin, Birmingham	8,796 0 0
A. Groves & Sons, Ltd., Oxford	8,742 0 0
The Building & Public Works Co., Ltd., Swindon	8,625 0 0
E. L. Lewis, Redditch	8,595 0 0

Elemore Colliery.—Pithead baths, for the Miners' Welfare Committee. Mr. J. H. Forshaw, architect to the Miners' Welfare Committee, Dean Stanley-street, London, S.W.1:—

*A. H. Earnshaw & Son, Cleveland-buildings, Grange-road, Darlington.

(Cost: £25,000.)

Ellesmere Port and Whitby.—40 houses on Grange Farm estate, for the U.D.C. Mr. C. W. Davies, surveyor:—

*A. Edwards, Ltd., Cefn-y-Bedd, Ruabon £11,240

Ewell.—Roads and sewers for Broadway and The Glade, adjoining Stoneleigh Station, for the Stoneleigh Trust, Ltd. Messrs. Atkinson and Marler, surveyors. Mr. E. Russell, P.A.S.I., quantity surveyor:—

Stephen Kavanagh	£5,983
Chas. Carter & Co.	5,837
Richard Costain & Sons	5,565
Howard Farrow, Ltd.	5,267
John Cronk & Sons, Ltd.	5,105
George Wimpey & Co., Ltd.	5,045
Fitzpatrick & Sons	5,039
Willment Bros.	5,002
*Bridgwater Bros.	4,996

Girvan.—Houses on the Third Development site, for the T.C. Mr. William Bailie, architect, 2, West Regent Street, Glasgow:—

Excavation, brick and mason—
*D. Kirkland, Union-arcade, Ayr £3,558 0 0

Joinery, carpentry and ironmongery—
*J. Boyd, Town Head, Cumnock 2,296 12 11½

Glazier—
R. Scott & Sons, 7, Mill-street, Kilwinning.

Tiles and roughcasting—
*J. Kerr, 161, Dalrymple-street, Girvan 838 12 9

Plumber—
*T. Porter & Sons (Glasgow), Ltd., 117, Seaward-street, Glasgow 1,046 12 10

Plaster—
*J. Hannah & McNish, 1, Loreburn-terrace, Dumfries 535 0 10

Painter—
*A. McKewalker, 95, Main-street, Preswick 188 13 6

Glasgow.—Reconstruction scheme at Central Station, for the L.M. & S. Engineering Department:—

*R. Gilchrist & Sons, Ltd., Stevenson-street, Calton, Glasgow.

Hawarden.—For (*a*) painting of 80 Council houses at Ewloe, and (*b*) electricity sub-station at Coed Talon, for the R.D.C. Mr. J. G. Reidford, surveyor:—

(*a*) *G. F. Twistam, Broughton, near Chester.
(*b*) *W. Eccleston & Son, Hope, Wrexham.

Haywards Heath.—Structural alterations, new shopfront and interior fittings, at 4, Commercial-square:—

*Pike & Pettengell, 111, 113 and 115, Hardres-street, Ramsgate.

Hebburn-on-Tyne.—Additions to Messrs. J. H. Holmes & Co.'s premises. Messrs. Cackett, Burns-Dick & MacKellar, architects, 21, Ellison-place, Newcastle:—

*J. Lowry, Corporation-street, Newcastle.

Herne Bay.—Bank and business premises on the site of the old Town Hall, for the Midland Bank, Ltd. Mr. Robert Messenger, A.R.I.B.A., architect, 148, High-street:—

*Ashford Builders' Co., Ltd., 3, Bloomsbury-place, London, W.C.1.

Huyton-with-Roby.—36 houses at Huyton Quarry, for the U.D.C. Mr. A. W. Thomas, M.Inst. M.&Cy.E., architect and surveyor:—

*J. W. Jones & Sons, Liverpool £10,520

Ilkeston.—156 houses and construction of footpaths, drainage and fencing at Heanor-road housing estate, for the T.C. Mr. G. Smith, Borough Engineer:—

*Harris & Son, Mauhay, Derby.

Kennoway.—Drainage scheme, for the Fife C.C.:—

*George Bald, Dunfermline £3,545 17

Kilkenny.—22 four-roomed houses on the Fair Green site, for the Corporation:—

W. K. Cleere, Kilkenny	£7,422
Thomas Connolly, Kilkenny	6,978
Ennis Bros.	6,702
H. A. Hamilton, Waterford £5,862 and	6,522
Richard B. Nolan, Waterford	6,312
*T. Kennedy, Galway	5,707

Lancashire.—For (*a*) reconstruction of portion of street bridge in Garstang-road, Nether Wyresdale; (*b*) repairing and straightening Loud Mytham bridge, Clitheroe; (*c*) re-decking and widening Greenfield bridge, Preston-road, Chipping, and reconstruction of Smithy-lane bridge, Garstang; and (*d*) reconstruction of Dales Brow, Whiston, for the C.C. Mr. Peter Schofield, County Surveyor, County-buildings, Fishergate, Preston:—

(*a*) *L. Mortimer, Hebden Bridge.
(*b*) *T. Varley & Sons, Ltd., Blackburn.
(*c*) *L. Mortimer, Hebden Bridge
(*d*) *Thos. Coates (1927), Ltd., Bury.

Leeds.—Alterations to premises for shop and café, Infirmary-street, for Messrs. Hindells Dairy Farmers, Ltd., Leighton-street:—

*W. Irwin & Co., Ltd., Leeds.

Leeds.—Alterations and additions to premises in Park-place and Central-street:—

*Wm. Irwin & Co., Ltd.

Leicester.—Seven shopfronts at St. Nicholas-street, for Mr. W. Golland. Mr. T. H. Bowell, L.R.I.B.A., architect:—

*A. Hawkes & Co.

Builder—*Roberts & Borham.

Leicester.—Shopfronts and snack bar at Victoria Hotel, London-road. Mr. Frank Seale, A.R.I.B.A., architect:—

*A. Hawkes & Co., Leicester.

Structural work—*Stevens Bros., Leicester.

Electrical work—*Electrical Equipment Co., Leicester.

Leicester.—Assembly hall, for the Isolation Hospital, Roby-road, for the Matron and staff. Mr. J. S. Fyffe, A.R.I.B.A., Honorary Architect, Wiggston House, 18, High Cross-street:—

P. Beck, Leicester.

Limavady.—20 houses, for the U.D.C.:—

*R. Holmes, Limavady £3,140

Limerick.—35 houses at Castle Barracks:—

J. Kenny & Sons	£11,631
P. Molloy	11,232
C. O'Neill	10,113
*Michael Doyle	9,122

London.—Erection of block 12 of dwellings on Whitmore estate, Shoreditch, for the L.C.C.:—

		Empire Materials.
Griggs & Son, Ltd.	£14,094	£14,614
J. W. Trudgett, Colchester	13,650	13,650
W. Harris, Ltd.	13,442	—
H. C. Horswill, Ltd.	12,554	12,554
Fred & T. Thorne	11,857	11,960
Albert Monk	11,565	11,565
A. T. Rowley	11,486	11,486
The Unit Construction Co., Ltd.,	11,392	11,392
Patman & Fotheringham, Ltd.	11,317	11,317
R. J. Rowley, Ltd.	11,176	11,176
Bovis, Ltd.	11,174	11,164
J. & C. Bowyer, Ltd.	10,947	10,947
A. E. Symes, Ltd.	10,832	10,911
W. Shurmur & Sons, Ltd.	10,520	10,520
Allen Fairhead & Sons, Ltd., Enfield	10,499	10,593
J. E. Billings & Co., Limited	10,470	10,470
W. H. Gaze & Sons, Ltd., Kingston-on-Thames	10,443	10,488
Gee, Walker & Slater, Ltd., 32, St. James's-street, S.W.1	9,700	9,700
Architect's estimate	—	10,765

(Remainder of London.)

Listowel.—104 houses, for the U.D.C.:—

*M. A. Hannan £28,894

¶London.—Tenders accepted by H.M.O.W. for the week ended November 12:—

Dorchester—maintenance work—C. E. Slade, Acland road, Dorchester.

Gravesend—maintenance work—A. E. Tong & Son, Manor-road, Gravesend.

Willaston Telephone Exchange—erection—W. Fleming & Co., Cross-street, Neston, Wirral.

Eastbourne—maintenance work—J. Bodle, Ltd., 18, Victoria-place, Eastbourne.

Cranwell, Royal Air Force College—heating—Barford & Perkins, Ltd., Rochester.

London.—Two shops in Wentworth-street (one with a three-story dwelling, and one with three showrooms above) and one lock-up shop in Bell-lane, Holland estate, Stepney, for the L.C.C.:—

		Empire Materials.
Cole, Loasby & Co., Ltd.	£4,672	£4,672
Thomas D. Leng	4,407	4,407
John C. Mather & Son	4,352	4,352
R. J. Rowley, Ltd.	4,326	4,326
R. Woollaston & Co.	4,195	4,195
A. T. Rowley	4,141	4,141
Stapleton & Sons	4,066	4,066
H. Lacey & Sons, Luton	4,027	4,027
J. E. Billings & Co., Ltd.	4,012	4,012
Charles K. Price	3,987	3,987
George Keetch & Sons	3,949	3,949
Vigor & Co. (Poplar), Ltd.	3,934	3,988
Marrable Bros.	3,884	3,884
A. E. Symes, Ltd.	3,847	3,878
W. J. Clemens	3,820	3,861
J. & C. Bowyer, Ltd.	3,765	3,765
W. H. Gaze & Sons, Ltd., High-street, Kingston-on-Thames	3,733	*3,747
George Barker	3,721	3,766
Architect's estimate	3,925	3,936

(Remainder of London.)

London.—Cleaning down of the front of the Town Hall, for the Shoreditch B.C. Borough Surveyor:—

*A. Dreyfus, Ltd., 6, Bishopsgate, E.C.2. £787

Lutterworth.—Four houses at Swinford, for the R.D.C. Mr. G. Berridge, surveyor:—

*F. Cook, Broughton Astley £1,115

Lymington.—17 houses at Pennington, and extension and alterations at the Town Hall, for the T.C. Borough Engineer, 14, High-street:—

Houses—
*W. E. St. John & Son, "Hillcroft," Pennington Lymington £4,640 0

Extension—
*E. Buckle, Pilley-in-Lymington ... £1,121 1

Macclesfield.—Public conveniences at Poynton, for the R.D.C. Mr. J. H. Waters, surveyor, Moody-chambers, Moody-street, Congleton:—

*V. Smith, Hazel Grove, Stockport.

(Estimated cost £1,034.)

Manchester.—Alterations to premises in Withington-road, Whalley Range, for conversion into seven shops. Messrs. Drury & Gomersall, architects, Imperial-buildings, Oxford-road:—

*P. Hamer, Ltd., Manchester.

Middlesbrough.—Erection of Emmerson County School, for the E.C. Director of Education:—

*Robert G. Tarran, Ryde-avenue, Hull £19,990

Morley.—Alterations and additions to Springfield Mills, for Messrs. Hudson, Sykes & Bousfield, Ltd.:—

*Harrison Spensley & Sons, Morley, near Leeds.

Naas.—Thirteen labourers' cottages, for the U.D.C.:—

Collon Bros.	£5,600
If concrete tiles	5,407
James E. Moore	5,539
Richard O'Neill, Leixlip	5,075
Denis Corcoran, Naas	4,589
Or using alternative Irish tiles	4,489
Henly Bros.	4,500
G. H. Black, Athlone	4,434
Ryan Bros., Clonshambo, Donadea	4,431
With roof concrete tiles	4,381
Kelly & Sons	4,289
O'Kelly & Son, Mullingar	4,250
*W. Hoey & Co., Carbury	3,900

Newart Hill.—Houses on the High-street site, for the Council. Mr. Peter C. Smith, architect, Clydesdale-street, Hamilton:—

Excavation, brick and mason—
*J. Patterson & Sons, Holytown... £3,551 15 1

Plaster—
*Irvine Swan, 913, Catherine-street, Motherwell 430 15 1½

Slater—
*A. Rowatt, Hamilton 739 15 7½

Electric light and fittings—
*D. Henderson, Great Western-road, St. George's, Glasgow ... 125 19 0

Joiner—
*Duncan McGill & Co., Coatbridge.

Painter—
*Wm. S. McDougall, Bellshill ... 233 8 6

Plumber—
*Duncan Johnstone, 25, Waterside-street, Strathavon.

Newcastle-on-Tyne.—150 houses on the Scotswood (Munition Cottages) site, for the City Council. Mr. R. E. Roberts, housing architect, 18, Cloth Market:—

*J. S. Hetherington, 470, Westgate-road, Newcastle.

Northallerton.—Alterations and additions to the casual wards at the poor law institution, for the C.C. Mr. J. R. White, F.R.I.B.A., County Architect, County Hall, Northallerton:—

*D. Oakley, Ltd., Romanby-road, Northallerton.

Portarlington.—Boundary wall at the Cemetery, for the Joint Burial Board:—

*J. Dunne £747

Pottespury.—Houses, for the R.D.C.:—

Ashton, eight houses—
*W. Lepper & Sons, Paulerspury ... £2,154 0
Cosgrove, six—
*—. Grundon, Greens Norton 1,675 16
Grafton Regis, four—
*W. J. Buswell, Brixworth 1,086 0
Potterspury, 16—
*W. Lepper & Sons 3,298 12

Preston.—Mortuary, rear of the fire station, Leyland-road, Penwortham, for the R.D.C. Mr. J. R. Taylor, surveyor:—

*W. & J. Hart, Longton, near Preston.

Roscrea.—38 brick cottages, for the Offaly Board of Health:—

*T. Meagher, Roscrea ..... each £199

Sheffield.—Houses, for the T.C.:—

*J. Laver & Sons, Ltd. (102 houses)... £33,082
*R. T. Hinchliffe & Sons, Ltd. (52 houses) 16,756
*M. J. Gleeson, Ltd. (60 houses) 19,663

Skegness.—Shopfronts in Lumley-road, for Messrs. Keightleys, Ltd.:—

*A. Hawkes & Co.

Sligo.—Boundary walls at the under-mentioned cemeteries, for the Joint Burial Boards:—

Armagh—*M. J. McDonagh £185
Kilcummin—*P. Henry 130
Kilvarnet—*P. Crystal 230
Cloonmeshon—*P. Mulligan 265
Killalah—*L. Leonard 149

Shotts Area.—74 houses at Salsburgh housing site. Mr. Peter S. Smith, architect, Clydesdale-street, Hamilton:—

Excavation, brick and mason—
*James Patterson & Sons, Holytown £10,058 15 3
Electric lighting—
*D. Henderson, Great Western-road, St. George's, Glasgow ... 361 17 6
Joinery, carpentry and ironmongery—
*W. Chambers & Co., Ltd., Goods Station, Motherwell 6,741 19 8
Painter—
*Barrie & Co., Wind Mill Hill-street, Motherwell 660 17 7
Plumber—
*D. Johnstone, 25, Waterside-street, Strathavon 2,680 8 3
Slater—
*Matthew Thom & Co., Ltd., The Cement Works, Airdrie 2,245 3 0

South Moor.—New United Methodist church. Mr. T. Welsh, architect, Louisa Colliery, Stanley, Co. Durham:—

*T. Soulsby, Garden House, Pelton, Co. Durham.

Sunderland.—84 four-roomed houses at Commercial-road estate; 12 three-roomed houses and 12 two-roomed houses at West Moor-road estate, for the T.C.:—

‡W. Welford, Whitburn £30,732

Swansea.—Portion of the main drainage scheme, for the Corporation:—

*Kinnear, Moodie & Co., Glasgow ... £463,081

Tipperary.—37 four-roomed houses in St. Patrick's-avenue, for the U.D.C.:—

Roche, Morrissey & Kennedy, Clonmel £11,856
Connolly, Kilkenny 11,238
*Barry & Cavanagh, Tipperary 9,160

Ulverston.—Alterations to windows and erection of verandah at the women's infirmary ward at the institution, for the P.A.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston:—

*Nelson, Wearing & Co., Ulverston.

Wakefield.—Conversion of two houses and shop into a lock-up shop and offices, for Mr. G. Avison:—

*G. Blakey & Son, Ltd.

Waltham Abbey.—62 houses on the Sewardstone-road site, for the Council:—

‡G. Fordy £18,414

Warrington.—For (*a*) 130 houses A3 type, and (*b*) 10 houses A2 type, for the T.C. Mr. A. M. Ker, Borough Surveyor:—

(*a*) *Clough & Gaskell, Wigan.
(*b*) *D. Cooper, Warrington.

Winchester.—Public convenience near the Westgate, for the T.C.:—

*W. T. Fennell & Co. £919

Wolverhampton.—Rebuilding the "Harp" Inn public-house, Walsall-street, for Wolverhampton and Dudley Breweries, Ltd., Park Brewery. Messrs. A. T. & Bertram Butler, F. & A.R.I.B.A., architects, 31, Priory-street, Dudley:—

*H. Wilcock & Co., Ltd., Wolverhampton £2,110

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